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THE BICYCLING WORLD

FOUNDED
1877

and MOTORCYCLE REVIEW

In which is incorporated "THE WHEEL" (New York) and the "AMERICAN CYCLIST" (Hartford)

New York, N. Y., U. S. A., Thursday, April 4, 1901.

\$2.00 a Year.
10 Cents a Copy.

The mark of
Honest Cycles at
Honest Prices."



HONEST CYCLES
AT
HONEST PRICES.

Iver Johnson's
Arms and
Cycle Works,

Fitchburg,
Mass.

NEW YORK OFFICE:
99 Chambers Street.

THE MAN WHO TELLS YOU

he can sell you a bicycle as good and for a
less price than is asked for the

IVER JOHNSON

has an axe to grind—for gold dollars are not
sold for 90 cents.

The Name IVER JOHNSON

is so distinctively a "mark" of QUALITY that
the world recognizes it as a

"GUARANTEE OF VALUE."

Major Taylor and Harry Elkes
Ride the Iver Johnson.

A harvest of sales are in store for
and agency proposition mailed when

son agents. Catalog

77761

WASHINGTON D C

A Word as to Cushion Frame Chain Wheels.

It is frequently said that "1901 will prove a Cushion Frame year."

That may or may not be true.

To The George N. Pierce Co. every year has been a Cushion Frame year since 1899, because it has intelligently built and diligently sold these wheels.

Utilizing the **repute** thus created, other makers of wheels are now in the market with this device.

The George N. Pierce Co. for 1901 offer these models to the trade backed by **four years of experience**. The quality is the best. The equipment is **unequaled**, including **Palmer Tires** and **Morse Chains**. Experiment is past on **PIERCE** Wheels. If you want all this at competitive prices order only **PIERCE**.

THE GEORGE N. PIERCE CO.

BUFFALO, BOSTON, NEW YORK, DENVER AND SAN JOSE.



Regular Cyclometer.
10,000 miles and repeat.
Weight, 1 oz.

The One Cyclometer that has Stood
the Test of Time,

THE

Veeder

IT IS SOLD IN EVERY COUNTRY IN THE WORLD
—CIVILIZED AND OTHERWISE.

It is the Acknowledged Standard Distance Recorder

FOR BICYCLES, THROUGHOUT THE CIVILIZED WORLD.

Any Jobber that does not carry

Veeder

CYCLOMETERS

does not carry a complete line of cycle sundries. Made for 24, 26, 28 and 30 in. wheels. Catalogue free.

THE VEEDER MFG. COMPANY,

HARTFORD, CONN.

Makers of Cyclometers, Odometers, Counters, Fine Castings.



Trip Cyclometer
10,000 miles and repeat
Weight, 2 oz.

THIS IS **WHAT THE MORROW** **MADE POSSIBLE**

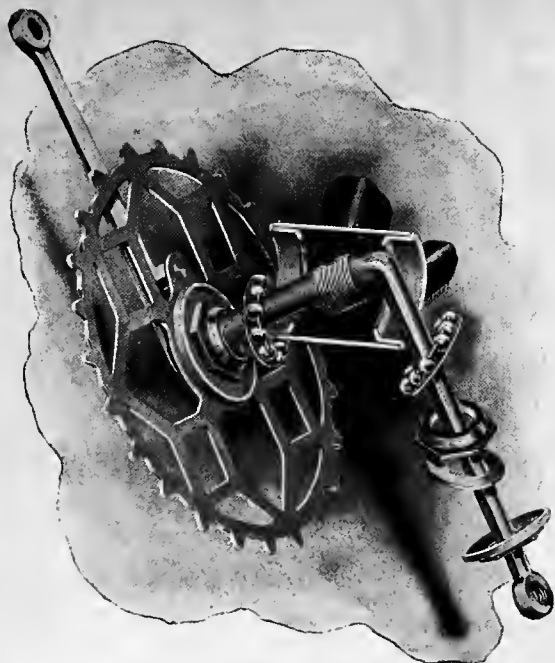
(From COLLIER'S WEEKLY.)

The coaster brake has proven itself almost a priceless boon. Until the advent of this device, coasting, akin to flying, and always one of the most zestful features of cycling, was a dangerous pleasure, so dangerous that laws forbidding it were enacted in many places, New York among them. Then, coasting—that mad but delightful rush or glide downhill—required that the feet be removed from the pedals, and woe to the unlucky wight who lost control of his wheel or in whose path a wagon, a befuddled pedestrian or any other obstacle suddenly loomed! It was only grace of Providence that could save him: a short stop was impossible.

But with the coaster brake—its mechanism entirely hidden from view in the hub of the rear wheel—how different! A slight movement of the pedals and the gear is disengaged, the pedals cease to revolve, and the glorious glide downhill is made in safety, feet on the pedals, the bicycle under complete control. If danger looms ahead, a backward pressure by the pedals and the brake is instantly applied and the speed checked! In the old days, many riders, women particularly, were too timid to coast, and thus lost to themselves that magnificent exhilaration which comes only with a swift flight downhill; they pedalled downhill as well as up grade; in fact, they back-pedalled downhill, and back-peddalling is almost as wearying as the climb upward. Up hill or down or on the level, their legs moved with the pedals. Aside from the exhilaration it affords in perfect safety, the coaster brake saves much actual exertion. It is reckoned that in a ride of fifty miles in an undulating country the coaster brake saves fifteen miles of pedaling. Small wonder, then, that since the pneumatic tire no invention has obtained such popularity!

IS IT
ANY WONDER
THAT
THE MORROW
(THE PIONEER COASTER BRAKE)
OCCUPIES FIRST PLACE
IN THE ESTEEM
OF
THE TRADE AND THE PUBLIC!

ECLIPSE MANUFACTURING CO., - ELMIRA, N. Y.
NEW YORK OFFICE, 105-107 CHAMBERS ST.



SIMPLICITY ONE-PIECE CRANKS

are used on all



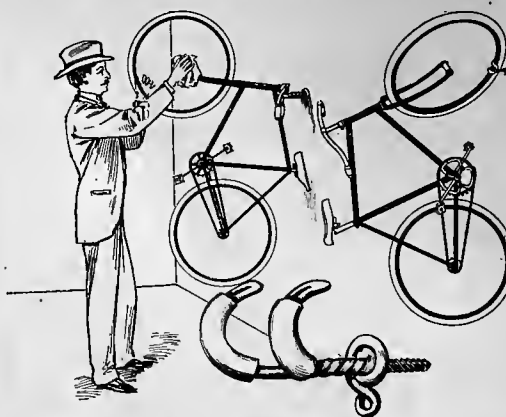
No special tools required to handle this Hanger. Can be removed, cleaned, replaced and adjusted by the rider in five minutes.

NOT AN EXPERIMENT. 20,000 IN USE, 000 KICKS.

SOME REPRESENTATIVES:—Howell & Meehan, 24 Kingston St., Boston, N. E. Agents: Mitchell, Lewis, Staver Co., Portland, Ore.; John Stafford, Hamilton, Ont., Canadian Rep'tive.

MITCHELL BICYCLES MANUFACTURED BY
WISCONSIN WHEEL WORKS, BOX W, RACINE JUNCTION, WIS.

COLE'S TWIN HOOK. SCREW INTO THE WALL.



Patented.

1st position shows wheel hung on the Hook by the Handle Bar raising the wheel off the floor for cleaning purposes. The wheels and the chain are free to revolve.

2d position shows front wheel hung on the Hook and rear wheel resting on the floor for storage and show-room purposes. 16 wheels can be stored in 20-foot wall space.

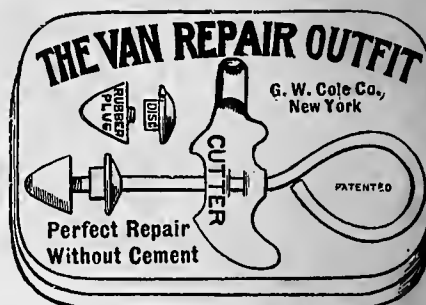
Excellent Hook device for dumb bells, oars, tennis, gymnasiums and railroad baggage cars.

Nickel-plated Rubber Covered.

THE VAN REPAIR KIT.

Rubber plug is cup-shaped and is easily forced through the puncture, made round by the cutter. Screw down the outside cap and the rubber plug flattens against inner wall of tire, making a quick, clean and permanent repair WITHOUT CEMENT.

GUARANTEED NOT TO CUT THE TIRE.



G. W. COLE CO., 141 Broadway, NEW YORK.

Makers of the famous

3 in One

Send for catalogue No. 10.

SOLD BY ALL JOBBERS.

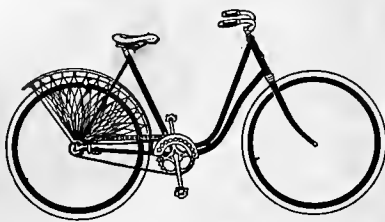
EXPLORER BICYCLES.

BUILT ON HONOR.

This is our sixth year in business, and we have prospered. We are making what we consider an elegant line of high grade wheels, and we pursue a live-and-let-live policy, working hand in hand with our patrons.

\$30.00.

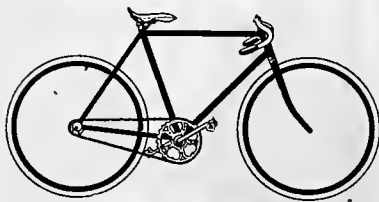
Our Light Roadsters, listing at \$30.00, in Men's and Ladies' Patterns, are well and honestly made. We use nothing but the best material throughout. Shelby Seamless Tubing, one-piece Hanger, drop forged Crown, Adjustable Bars, Kokomo Tires, Sager Saddles, and we enamel in either Crimson or Black.



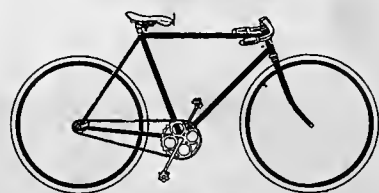
EXPLORER (LADIES) No. 30.

\$40.00.

Our Explorer Special at \$40.00 is a Perfect beauty, so many of our agents tell us. Enameled in Orange, with an Olive Head. Extension Adjustable Bars, Troxel Saddle, one-piece Hanger, and choice of M. & W., Hartford or Goodrich Tires. This wheel is equipped with a Morrow Coaster Brake.



EXPLORER No. 30.



EXPLORER SPECIAL.

Any energetic dealer can make his living on this line alone. We have room for a few more good retail customers. Our discounts are such as afford the agents a good, clean, handsome profit. Drop us a line.

EMPIRE STATE CYCLE CO.

ADDISON, N. Y.



COMBINATION LAMP.

The Prettiest and Most Practical Lamp on the Market.

Made by The Admiral Lamp Co.,

Columbus, O.

THE NAME

C. B. BARKER & CO., Ltd.

THE PLACE—

93 READE ST., NEW YORK.

THE GOODS—

SUNDRIES.. PARTS.. FITTINGS.

THE POLICY—

LATEST STOCK.. LOW PRICES..
LIBERAL TREATMENT.. PROMPT
DELIVERIES.. WIDE RANGE OF
SELECTION.

THE TIME

TO WRITE FOR CATALOGUE AND
QUOTATIONS IS NOW—TO-DAY.

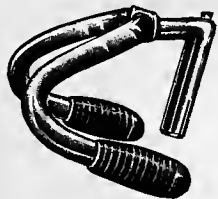
DO IT.

1901

Kelly Adjustable Handle Bars.



NO. 3 ARMS.
Regular Stem.



NO. 4 ARMS.
3/4 in. Forward Extension Stem.



NO. 5 ARMS.
1 in. Forward Extension Stem.

"The Standard Bar
of the World."

Why do we succeed?

BECAUSE we do not try to
force
EXPERIMENTS on our
friends which
ARE DANGEROUS. We
give them an ar-
ticle that has been
made for Five
Years and tested
by over ONE
MILLION RID-
ERS.

We never used a casting.
We could not afford to.

Furnished by
LEADING
MANUFACTURERS.

Sold by all First Class Job-
bers and Dealers.

Send for catalogue.

THE KELLY HANDLE BAR CO., CLEVELAND, OHIO, U. S. A.

VICTOR
BICYCLES

will be the
POPULAR MOUNT
this year.

If you have not secured the agency, better
do so at once.

THE CLIMAX COASTER
AND BRAKE

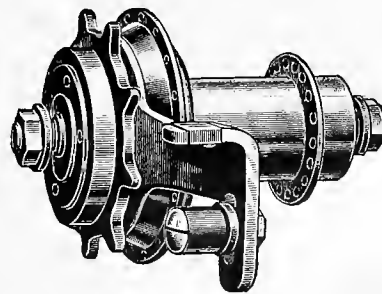
is the easiest running coaster brake made. Can be
fitted to any make of wheel. Fewer parts. Less
friction. Lightest made. No wheel complete with-
out it.

CATALOGUE UPON REQUEST.

J. STEVENS ARMS & TOOL CO.,

P. O. Box 2660.

CHICOPEE FALLS, MASS.

Here's the
UNIVERSAL
Coaster Brake.

There is none other quite so good.
It has features all its own.

Write for Catalog and Quotations.

Universal Coaster Brake Co., Office 318 Ellicott Square, Buffalo, N. Y.

Brandenburg Bros. & Wallace, Selling Agents,
New York and Chicago.

WE WANT YOUR SPOKE

THE WORLD'S STANDARD

and Nipple business,

and are willing to compete for it.

Write us when ready for business, stating
quantity you want.



JUVENILE BICYCLES,

THE FAVORITE,

are so popular this year
that we have been obliged to largely increase
our output.

TOLEDO METAL WHEEL COMPANY,

TOLEDO, OHIO.

Grand Central Station, New York.

The president of one of the great universities of New York says of it:

"Permit me to congratulate the company upon the marvelous transformation of Grand Central Station. I did not suppose there was any wand that had sufficient magic to bring out of the old station anything of such perfect adaptability and beauty."

This new palace, located in the very heart of the metropolis, is the

NEW YORK TERMINAL

station of all the New York Central Lines. No wonder so many travel by this route. These lines comprise the New York Central, Boston & Albany, Michigan Central, Lake Shore, Big Four, Pittsburg & Lake Erie and Lake Erie & Western Railways.

Copy of the Illustrated Catalogue of the "Four-Track Series," New York Central's books of travel and education, will be sent free, postpaid, to any address, on receipt of a postage stamp, by George H. Daniels, General Passenger Agent, New York Central Railroad, Grand Central Station, New York.

WHOLESALE BICYCLE SUPPLIES

WE MAKE
LOW PRICES
LARGE STOCK
PROMPT SHIPMENTS

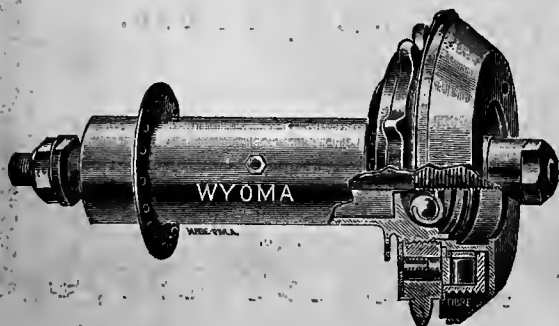
FEATURES OF
OUR BUSINESS

52 PAGE CATALOGUE TO ANY
DEALER WILL BE SENT FREE
UPON RECEIPT OF APPLICATION

THE POST & LESTER CO
HARTFORD, CONN.

E. A. Sarman Hf W

As Good as the Best yet as Cheap as the Cheapest!

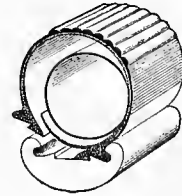


What more could you ask? Do you want us to tell you that the

WYOMA

is the only coaster-brake on earth worth mentioning? Are you not tired of that sort of talk? Facts are sufficient and we state them. Write for circular D and be convinced.

WYOMA COASTER BRAKE CO., Reading, Pa.



LIFE AND STRENGTH

VITALITY

Is as essential to a bicycle tire as to the human frame—the entire value of a wheel depends upon it. G & J TIRES live longer, ride easier, are safer and more easily mended than any other tire made.

G & J TIRE CO.

Indianapolis, Indiana

That Old Reliable,

THE
DEMOREST
BICYCLE

has always assured

The Dealer a Living Profit,

and The Rider a Full Measure of Satisfaction,

and it always will, too.

WHAT WHEEL DO YOU HANDLE?

Demorest Mfg. Co., Williamsport, Pa.



Century Cushion Cycles.

THE WHEEL OF THE COMING CENTURY.

We cannot tell you all about it here, but if you will write us we will send you our new catalogue and prices to agents.

MILWAUKEE CYCLE CO.,
MANUFACTURERS OF CENTURY CYCLES,
249-251 Lake St., MILWAUKEE, WIS.

IT IS A GOOD STORY

that will stand telling often, and our agents have found it a profitable story to tell the public.

IT IS AN OLD STORY

of the curved frame and noiseless, double roller chain, the distinctive and superior features of cycle construction which made the Keating bicycle reputation of "365 days ahead of them all."

IT IS A NEW STORY

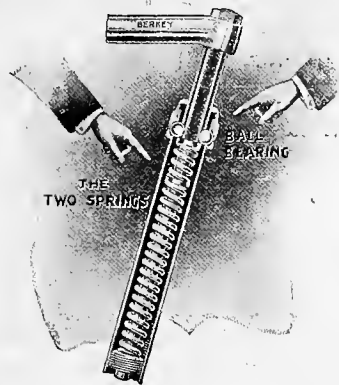
that we would like to tell you also (and it will go fast). It is the story of the Keating motor bicycle. It is different from the many so-called motor bicycles. Mr. Dealer, we can entertain you. Send us the invitation to do so at once.

KEATING WHEEL AND AUTOMOBILE CO.,
MIDDLETOWN, CONN.

ARE YOU ALIVE

to the fact that you can have happy and satisfied customers by equipping their wheels with the

BERKEY BALL BEARING SPRING POST



Doubles the pleasure of cycling. Absorbs all vibration, jar and jolt, making rough roads and pavements seem as macadam.

Guaranteed to give satisfaction or money refunded.

Fits Any Bicycle, New or Old.
Price \$2.00.
Discounts to Trade.

BERKEY SPRING SEAT POST CO.,
Grand Rapids, Mich.

Sheet Steel Bicycle Parts.

All Kinds of Metal
Stamping

THE CROSBY COMPANY, Buffalo, N. Y.

WOLFF-AMERICAN BICYCLES.

STEARNS BICYCLE AGENCY, - Syracuse, N. Y.

THAT QUESTION:

If not, why not?

is always timely.

We ask it of you.

If you are not handling

BEVIN BELLS,

why not?

We have them in
all sizes—all styles—all prices,
and our nearly

60 Years

of experience in Bell manufacture qualifies us, we believe, to produce goods that should satisfy all kinds and conditions of people.

Our effort is ever that way. If we have not pleased you—if we have not been favored with your inquiry or orders, we are anxious, for our own sakes, to know just why. It may profit you to let us know.

Bevin Bros. Mfg. Co.,
East Hampton, Conn.
(Business founded 1832.)



LIKE ALL NATIONALS, THEY HAVE AN INDIVIDUALITY ALL THEIR OWN—THERE ARE NO OTHERS LIKE THEM. THEY ARE EXCLUSIVELY NATIONAL, BOTH IN DESIGN AND MANUFACTURE, AND BEST OF ALL THEY SERVE THEIR RIDERS AS SATISFACTORILY AS THE CHAIN MODELS.

THE OLD NATIONAL RIDER WHEN HE WANTS A NEW BICYCLE BUYS A NATIONAL.

CHARLES CITY, IOWA, March 20, 1901.

Your chainless is all right. I could not ask for a wheel to look better after 1500 miles riding. You would not know that the wheel had been used. The man that I sold that wheel to last fall bought the second one this spring.

Yours truly,

C. H. BAILEY.

GET CATALOG FROM NATIONAL CYCLE MFG. CO., BAY CITY, MICH., MAKERS OF ONLY GOOD BICYCLES.



Everyone
Knows

That

Nye's Oils

Are Best.

But all DO NOT KNOW that they are now also the

LOWEST IN
PRICE.

Have you got the revised figures? If not, why not?

W. F. NYE,

NEW BEDFORD,
MASS.

DON'T FORGET
STANDARD GOODS

Manufactured by
THE STANDARD WELDING COMPANY
Cleveland, Ohio.

GET OUR CATALOG NO. 4 SPECIAL.

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., April 4, 1901.

No. 1

PREPARING FOR FIGHT

Quiet Agitation That may Result in a Formidable Organization to Fight the Mail Order Houses.

Although it has not yet taken definite form, it is not wholly a secret that a serious effort is making to get the Western jobbers together for a stand against the cut-price "catalogue" or "mail-order" houses.

The movement is fairly under way, and developments are possible at any time. The scope of the movement includes the entire Western country, assurances of support having been received from some of the largest and best-known jobbers of that section. St. Louis seems to be the pivot of the movement.

The project is far-reaching, and includes not merely bicycles, but the other wares carried by the Western hardware jobbing houses. But that bicycles cut no small figure in the calculations is evident. The fact that one of the Chicago mail-order concerns alone has contracted for 100,000 bicycles and pairs of tires, and another for almost if not quite as many, will convey some idea of the extent of their business in this particular department; the additional fact that one of the concerns in question transacted business to the amount of \$17,000,000 during 1900 will give an even larger idea of how they cut into the trade of the West.

Just what form the jobbers' movement will assume it is yet too early to state, but what seems a dominant opinion is that those manufacturers who deal with the "mail-order" people must either cease dealing with them or be stricken from the jobbers' visiting list; in other words, the jobbers will refuse to buy of those who sell to their "arch enemy."

M. & W.'s Boston Branch Closed.

The Morgan & Wright New England branch, in Boston, has been discontinued. The "down East" territory will be taken over and handled by the New York store, which now assumes the proportions and importance of the M. & W. Eastern depot; W. C. Marion remains in charge.

Famous Foreigners Testified.

The taking of foreign testimony in the A. B. C. vs. Snyder suit, which involves the Smith bottom-bracket patent, and which is being defended by the Cycle Trades Protective Association, has been concluded. The commission summoned as witnesses practically all of the "old guard" of the English trade. Hearings were held in Coventry, Birmingham, Wolverhampton, Wednesbury, Nottingham, Liverpool, London and Glasgow.

Among the cycle manufacturers who gave evidence for the defendants were E. Mushing, G. Gilbert, J. K., R. and W. Starley, W. Andrews, W. Hart, representatives also of the Raleigh, Premier, Swift and Thomas Smith (of Aston) companies, Mr. Alexander (formerly of Bown's, Birmingham), T. Groves, John Keen (the old racer), and Dan Albone, besides workmen who fitted the brackets, etc.

All the defendants' witnesses supported the contention that there was no real invention in the rigid bracket, and that it was known long before the granting of the Smith patent. The Rover books showed large shipments of safeties to various parts of the United States in 1885 and 1886, and the Swift books showed shipments to Boston early in 1887.

Wyoma vs. E-Z.

The Wyoma and the E-Z coaster-brakes have finally locked clutches, so to speak.

The action, not wholly unexpected, takes the form of a suit brought in the United States District Court of the Western District of Pennsylvania by the Reading (Pa.) Automobile and Gear Co. against Edward E. Ziegler, of Philadelphia.

The two devices are practically identical, and the suit involves not only the infringement, but the ownership of the patent in dispute.

Ziegler, it appears, was formerly identified with the Wyoma people, and, it is claimed, invented the device while thus engaged and gave them the right to manufacture. Later he granted a sole license to the Reed & Curtis Machine Screw Co., who are marketing the coaster-brake under the style "E-Z," and to whom Ziegler gave assurances or guarantees of protection against litigation. Hence the suit against Ziegler himself.

PROTECTING ITS PRICE

Eclipse People Take a Jobber Into Court and Teach him That the Price of Morrows can be Upheld.

It will not be the fault of the Eclipse Mfg. Co. if their price on Morrow coaster-brakes is not maintained.

The price on the 1900 goods was considerably tampered with during that year, a fact which led the Eclipse people to require that all jobbers execute signed agreements before their orders for 1901 Morrows would be accepted. The agreement, compelling the maintaining of a trade price of \$4, was generally accepted.

Among those who signed the document was H. C. Colton, of Buffalo, N. Y. Early this year it was discovered that despite his agreement, he was cutting prices; this he followed up with a catalog quoting discounts which brought the price of Morrows under the stipulated figure. When remonstrated with, Colton flared up and asserted his right to do as he pleased with any goods he might purchase. The Eclipse people canceled Colton's contract and then shut off his source of supply, which they had traced to the Adirondack Cycle Co., also of Buffalo, who expressed regret for their share in the transaction.

Next the Eclipse Mfg. Co. applied to the United States District Court at Buffalo for an injunction restraining Colton from making further sales at less than the agreed price, and Judge Hazel promptly granted the prayer and ordered Colton to show cause, on April 1, why the injunction should not be made permanent. The case came up on that date, but the Court has not issued his judgment in the matter.

Colton, however, was quite ready to make peace. The temporary injunction tied up not only his sales but his catalogues and gave him quite a scare. He learned for the first time that it is possible to protect the price of a patented article.

J. E. Town, one of the Eclipse Mfg. Co.'s travelling representatives, died last week at Bangor, Me.

SHACK IS SHACKLED

Judgement by Default in Tire Fluid Suit Results in a Sweeping Injunction.

Whether or not the Seth Curlin patent, No. 430,565, applies only to puncture-healing fluid injected into inflatable decoy ducks and not to pneumatic tires, as its opponents claim, it is certain that the judgment against W. G. Schack, the Buffalo dealer, which the Buffalo Specialty Mfg. Co. obtained by default, suggests strongly that Schack is bound hand and foot, and that before he can make another move legal aid of a strenuous nature will be required.

In his decision Judge Hazel, of the United States District Court for the Western District of New York, finds that "the patent referred to in complainant's bill is a good and valuable patent, and that the said Seth Curlin was the original and first inventor of the improvement described and claimed in said patent, and also that said defendant has infringed upon said patent and upon the exclusive rights of the complainants, and especially of the Buffalo Specialty Mfg. Co., under the same."

The Court then "orders, adjudges and decrees that the complainants, and especially the Buffalo Specialty Mfg. Co., recover of the defendant the profits, gains and advantages which the said defendant has received or made, or which have arisen or accrued to him from the said infringement of said patent by the manufacture, use or sale of the improvement described and secured by the said letters patent and the license and privileges thereunder at any and all times since the said 17th day of June, 1890"—the date of the Curlin patent.

Harry L. Taylor, Esq., of Buffalo, N. Y., is then named as a master of the Court to ascertain and report "the gains, profits and advantages which the said defendant has received from infringing the said exclusive rights of said complainants." The master is empowered to examine Schack and his agents and employees, and "the books, vouchers and documents of each of them."

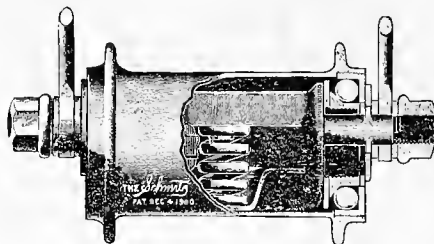
Judge Hazel's decree, signed on March 23, is sweeping in the injunction which it grants. It concludes:

"And it is further ordered, adjudged and decreed that a perpetual injunction be issued and that the said defendant, his agents, servants and workmen, be and they thereby are forever restrained and enjoined from making or selling or using, or causing to be made or to be sold, or to be used, any tire fluid or compound used or to be used to heal or close vents or punctures in or which may occur to pneumatic tires or other inflatable articles, or any device, mechanism or mechanical contrivances or other things whatsoever made or arranged or used according to the complainants' said patent, or differing therefrom only colorably, or by the substitution of mere mechanical improvements for

the same; and from selling or offering for sale, or causing to be sold, or causing to be offered for sale, any device or contrivance manufactured by said defendant, his agents, servants or workmen, and from putting into practice or vending said complainants' invention, without license or authority of the complainants, and from in any wise counterfeiting, imitating, infringing or resembling the same, in accordance with the prayer of the complainants' bill herein."

Reducing Vibration via the Hub.

Any device that tends to reduce vibration in motorcycles is entitled to consideration and should be welcomed. By this token the Schmitz spring hub, here shown, has claims to respectful attention; it makes for the desirable end, and in a manner that has simplicity as one of its charms.



As the illustration shows, the spring is applied below the axle and within the hub, thus "receiving the jar before it reaches the frame—on the same principle as a pneumatic tire," say its makers, Frank Schmitz & Sons, of Chicago. In a three-inch hub the spring affords a "play" of about two inches.

The device is intended for not only motorcycles, but for automobiles as well, its makers asserting that it obviates the necessity of springs above the axles, thus permitting of a reduction in weight and a saving in power.

Happened in Halifax.

In Halifax, N. S., there was recently decided a case involving some unusual features of trade interest.

W. H. Johnson & Co., of that city, sued a man named Moore for the price of a bicycle sold to him by one of their agents. The defendant, who weighs 285 pounds, was given the usual guarantee, and the agent also guaranteed that the wheel would carry a man of his weight. The man started to learn to ride at 10:30 o'clock at night without any one to assist him, and in his gyrations he fell and broke the wheel. He returned it to the agent, who agreed to have it repaired free of charge. The agent fulfilled his promise, but the man then refused to take the bicycle, and when his note subsequently became due he did not take it up.

The plaintiffs tried by every means to collect the note, but they were finally compelled to enter suit. The case was tried and judgment given for the amount of the note, \$47.50, and all costs.

The defendant then appealed, but the full bench refused to change the lower court's decision, and the appeal was dismissed.

DOUSING ITS GLIM

Court Orders the Winding up of Kentucky's First and Only Lamp Concern.

At Newport, Ky., last week, Judge Hodge, of the Circuit Court, issued an order which will lead to the winding up of the affairs of Brown & Smith, of that town, makers of bicycle lamps.

The action grew out of the connection of the absconding bank cashier, Frank Brown, with the concern. Brown was a business partner of Smith F. Smith in the lamp business, and it is averred that he invested \$16,000 in the venture. After the exposé of Brown's stealings Bank Examiner Tucker secured an attachment upon Brown's interests in the concern. Subsequent to this suit Smith sued for a dissolution of partnership.

Last week Judge Hodge ordered that all creditors should present the claims to Special Commissioner Youtsey, and that the affairs of the concern should be wound up as soon as possible. The business was on a paying basis when Brown left, and the manufacture of a bicycle lamp was returning encouraging dividends. Serious embarrassment has been caused since the exposure and flight of Brown.

Workman Sues for Wages.

Suit has been brought by a workman of the Dodge Cycle Co., of Syracuse, N. Y., which failed some time ago, against the members of the firm to recover \$27.62 alleged to be due him for wages.

It is stated that since it was decided by the Court of Appeals in the suit brought by Morgan & Wright, that Francis W. Gridley was a member of the old Dodge Cycle Company and jointly responsible for the debts with Horace M. Dodge, A. I. Dodge and Frederick Dodge, Mr. Gridley has settled most of the claims for merchandise, but has not paid the workmen.

Jobbers Banquet Dealers.

Los Angeles, Cal., has a local trade organization in process of formation. It was brought about in rather unusual fashion, the Los Angeles jobbers, of whom there are some eight or ten, inviting the local dealers and repair men to a banquet at which the preliminary steps were inaugurated. Several committees were appointed, and there seems small doubt that the organization will be effected.

Dunlop to Leave Coventry.

It is on the cards that England's "octopus," the Dunlop Tire Co., will shortly remove, lock, stock and barrel, from Coventry to Birmingham. The change, it is stated, will carry with it new machinery, which will inaugurate new processes of manufacture, designed to "not only lessen the cost of production, but to defend the Dunlop tire from fraudulent imitation," whatever that may mean.

TROPICS SHOW STRENGTH

February Exports Hold Symptoms of an Awakening in the Southern Countries.

By comparison with the record of the previous month, February was a fair month in the matter of cycle exports. Of course, it developed a considerable shrinkage by comparison with February, 1900; but losses are the rule and not the exception nowadays.

As usual, France, England and Germany accounted for the major part of the month's loss, aided by Cuba and Argentina, which bought so heavily during 1899 and 1900 that their limited and scattered populations were quickly satisfied.

The February record contains some suggestive increases, however. British North America developed strength, and, aside from Japan and Africa, the shipments to the tropical countries of this hemisphere hold promise of further awakening. Mexico and the Central American States and the West Indies bought more heavily than for some time past.

The record in detail follows:

Exported to—	February—		8 months ending February—		
	1900. Values.	1901. Values.	1899. Values.	1900. Values.	1901. Values.
United Kingdom.....	\$68,132	\$29,927	\$431,683	\$241,287	\$165,644
France	26,159	20,021	233,849	155,255	56,732
Germany	53,436	15,540	635,838	270,075	85,128
Other Europe.....	64,526	60,808	866,725	417,680	242,325
British North America.....	32,214	47,755	242,023	129,447	116,034
Central American States and British Honduras	86	1,003	4,004	2,241	3,500
Mexico	848	1,776	32,679	18,444	13,154
Santo Domingo.....	14	72	221	216	311
Cuba	11,962	311	4,340	128,419	10,286
Puerto Rico.....	185	.....	1,881	1,796	.....
Other West Indies and Bermuda.....	2,996	3,330	41,253	34,753	32,575
Argentina	14,038	1,204	117,452	129,078	23,263
Brazil	1,469	374	44,499	21,199	7,613
Colombia	22	.....	4,962	5,881	320
Other South America.....	4,186	1,218	34,728	48,893	20,276
Chinese Empire.....	3,231	368	19,082	18,677	9,330
British East Indies.....	9,024	5,286	116,638	83,728	35,301
Hong-Kong	491	.....	4,924	5,455	7,227
Japan	17,283	21,098	95,040	143,831	139,590
British Australasia.....	14,024	14,735	188,260	160,386	134,987
Hawaii	2,847	.....	24,042	27,429	.....
Philippine Islands.....	8,304	5,432	430	11,839	56,179
Other Asia and Oceania.....	4,626	3,593	23,965	34,887	18,893
Africa	2,737	6,981	120,983	47,561	75,054
Other countries.....	.....	.....	576	89	140
Totals	\$342,840	\$240,892	\$3,290,077	\$2,138,546	\$1,253,862

Rumania to Raise Rates.

The Roumanian Minister of Finance has submitted a bill to the Chamber for the augmentation of the duties leviable upon certain articles imported into Roumania. One of the articles is "velocipedes," the duty on which it is proposed to increase from 8 lei to 20 lei each, or from \$1.81 to \$4.

Brazil Will Impose Fines.

All shippers to Brazil failing to comply with the regulations regarding freight and expenses in invoicing will be hereafter subject to fine by the Brazilian authorities—a word to the wise that should be sufficient.

Cleveland Branch Burned Out.

Cleveland, March 30.—The six-story building, 284-288 Erie street was burned last night, causing a loss of \$60,000. The building was used for small manufacturing purposes. One of the ground stores was occupied by the Gormanly & Jeffery sales store, whose loss is placed at nearly \$30,000.

Pedal Patents Change Hands.

According to present indications a considerable flurry in the pedal trade is probable.

The Bridgeport Gun Implement Co. has acquired at least two important patents, which have been considerably litigated, and, it is said, are planning a coup of some sort.

The Bridgeport people themselves decline to discuss the matter or to give information, but developments are likely at any time.

Oppenheim is Out.

Fierceness of competition has forced out of business M. G. Oppenheim, who conducted a jobbing trade at No. 17 Warren street, this city. Most of his stock was bought up by other New York jobbers.

PRICE OF FINGERS

Lawyers in New York Value Them at \$7000 Each; in Ohio at but \$300.

That two workmen, both minors, and both employed in the factories of firms in the cycle trade, should have a forefinger smashed in punch presses, and both claim that the accidents were due to their being something wrong with the machines, and both bring suit almost simultaneously, although one accident happened in Syracuse, N. Y., and the other in Columbus, Ohio, is an unusual coincidence. There the similarity ends, however. The Syracuse lad's finger, it appears, is valued at \$7,000, while for that of the Columbus unfortunate but \$300 damages are asked.

In the first case, John Myttelstadt, through Frederick Myttelstadt, his guardian ad litem, has brought suit against the American Bicycle Company for injuries sustained while at work in the Syracuse factory of the defendant. Myttelstadt, who is sixteen years old, says that he was at work for the defendant on January 15, 1901, when his left forefinger was cut off by a "punch" machine. He charges that the machine was old, loose and out of repair. He asks for \$5,000 damages, and his father, in a separate action, wants \$2,000 for the loss of his son's services.

The Columbus suit is brought by William O'Dea, a minor, by his next friend, John O'Dea, against the Admiral Bicycle Lamp Company. William O'Dea was employed by the lamp company and worked on a punch machine, and according to the plaintiff's statement it was due to the negligence of the defendants that the accident occurred. The machine on which he worked was in such a shape that the punch would "repeat" or fall before the workman could withdraw his hand.

The foreman of the plant was told of the condition of the punch, and he, after adjusting it, stated that it was perfectly safe. Upon that recommendation the plaintiff returned to work, with the result that his forefinger of the left hand was crushed. O'Dea says that he was put to a great expense in having the injured member properly attended to, and prays judgment for \$300 and the costs in the case.

Recent Incorporation.

Pasadena, Cal.—The Pacific Pump Co., with \$50,000 capital, of which \$15,000 is subscribed, to acquire patents and inventions for inflating pneumatic tires. Stockholders: George F. Kernaghan, George O. Ferguson, C. J. Willett, E. R. Bradley, A. R. Metcalfe, J. D. Lincoln, James McLachlan and J. C. Bentz, all of Pasadena.

Willis Enters Philadelphia.

The Willis Park Row Cycle Co., of New York, has established a Philadelphia branch at No. 913 Arch street. Charles S. Smith, who has been in business at that address will remain in charge, conducting the bicycle department on his own account, and the sundry business for the Willis people.

San Salvador Sets New Figures.

Under the new tariff adopted by the Republic of San Salvador, "velocipedes, bicycles and accessories" will be taxed 50 centimes (10 cents) per kilogramme; this in addition to "surcharges and additional duties."

U. S. COURT JUDGMENT.

AGAINST THE COMBINATION'S CUSTOMER, W. G. SCHACK.

Cole & Co., prime movers in the "Combination," say the "Combination" has been waiting for two years to fight. W. G. Schack was a customer of the "Combination."

READ THE JUDGMENT

They say they are ready to defend any suit we may bring against their customers.

READ THE JUDGMENT

They made the same statement two years ago.

READ THE JUDGMENT

Do you believe the "Combination" or the United States Court?

READ THE JUDGMENT

They say the Curlin Patent does not apply to bicycle tires.

READ THE JUDGMENT

IT IS FOUND, ORDERED, ADJUDGED, AND DECREED that the letters patent granted to said Seth Curlin, on said 17th day of June, 1890. . . . is a good and valuable patent and also that said defendant has infringed upon said patent and upon the exclusive rights of Buffalo Specialty Manufacturing Co., under the same.

AND IT IS FURTHER ORDERED, ADJUDGED AND DECREED that a perpetual injunction be issued and that the said defendant, his agent, servants and workmen be, and they thereby are, forever restrained and enjoined from making, or selling, or using, or causing to be made or to be sold, or to be used, any tire fluid or compound used or to be used to heal or close vents or punctures in or which may occur to pneumatic tires or other inflatable articles. In accordance with the prayer of the complainants' bill herein.

Judgment signed this 23d day of March, 1901.

JOHN R. HAZEL,
U. S. District Court.

READ THE JUDGMENT

READ THE JUDGMENT

READ THE JUDGMENT

READ THE JUDGMENT

READ THE JUDGMENT

NEVERLEAK WINS, AS USUAL!



Fisk Tires

Tire Importance!

The Tire determines the pleasure to be derived from wheeling.

If the Tire is light, fast and easy to repair, and your wheel is half way satisfactory, comfort is bound to follow.

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and MOTORCYCLE REVIEW

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NEW YORK, APRIL 4, 1901.

Be Ready!

With the advent of April, the approach of Easter and the appearance of the weather the proverbially capricious month is famous for, the cycling impulse should start to throbbing, the cycling fever once more permeate the veins.

The sunshiny day, even if it is accompanied with such unpleasant concomitants as boisterous winds, clouds of dust, flurries of rains, is almost certain to start the thoughts countryward. The city is a twice-told tale. It is time for a glimpse of leafy lanes, for deep draughts of health-giving ozone free from contamination.

The vehicle par excellence for the attainment of all this was, is and always will be the bicycle. With it to call on, the city and country are brought so close together that they overlap. Seven-league boots are donned when the cycle is bestrode, and the journey is performed in a jiffy.

But the cycle is an indispensable prerequisite, and the better it is the more likely is it

to receive extended use. Most riders know this, and look upon the spring as the fitting time to have their machines repaired or replaced.

Consequently they are now in a mood to be cajoled, persuaded or argued into doing something in this direction.

Which they do is a matter that concerns the dealer; and very frequently he can make a sale where a repair only was contemplated. Clever talking will frequently accomplish this.

But, whether it be repair or replacement, the dealer should be wide awake and ready. All should be fish that comes to his net for the next few months, and unless he is prepared he will have but himself to blame for the result.

Coming Back Again.

At one time the healthfulness of bicycling was regarded as one of the chief merits of the pastime.

Physicians not only prescribed bicycles for their patients—male and female—but they also took allopathic doses of them in their own persons. For no inconsiderable space of time bicycles were regarded as a panacea for an inordinate number of the ills that flesh is heir to, and as such used with moderation or immoderation, as suited the whim of the user.

Succeeding that phase—almost coincident with it, in fact—came the boom. With its appearance everybody took to cycling. But instead of seeking for some reason or excuse to offer as a palliative of such a frivolous act, they frankly avowed that they cycled because they wanted to.

With the passing of the boom, however, and the subsequent decline of interest in cycling, other reasons actuated the wheelmen. Many of them—perhaps a majority—used the cycle as a business vehicle, others from force of habit, a few on the score of pleasure. But the health plea had been relegated to the rear.

There are observable, however, indications that the bicycle as a health preserver or promoter is once more coming to the front.

Dealers report renewed interest on the part of men and women, usually past middle age, who regard the bicycle as an ideal vehicle upon which to take much needed exercise. There is every reason to believe, they say, that such riders will indulge more freely in the pastime this season than for several years past.

To do this with any degree of comfort, a

large proportion of them will find it necessary to replace their old-fashioned machines with others more up to date.

Indeed, it is probable that the knowledge that there are now to be had vastly improved bicycles has something to do with their rekindled interest.

However this may be, it is undoubtedly true that dealers have a great opportunity to make a ten strike with such riders. They have but to point out the advantages of the new patterns to carry the awakened interest to the buying point.

With the three C's—the cushion frame, the coaster-brake and the chainless—at hand, it is a poor talker indeed who cannot convince any fair-minded person that they are vast improvements over the machines in universal use two or three years ago.

That point carried, the rest is easy. Sales should follow, and at remunerative figures.

To Revive the Tandem.

For the last several years the tandem has been under a cloud. Its sale has been limited, so very limited that not a few manufacturers have abandoned it entirely.

Despite the fact, the tandem has a fascination all its own, and as a pleasure vehicle for "mixed couples" there is none better. It is their "one-sidedness," so to speak, that has, however, mitigated against the tandem's extended use. The man has had more than a man's share of work to perform; generally speaking, the woman on the front seat is little more than a passenger who does not "work her way."

The E. R. Thomas Motor Co. have, however, pointed a way to a renewal of tandem popularity. By equipping a combination or drop-front tandem with a motor they afford the male rider the very aid he has lacked in the past. With such an auxiliary the man's pleasure can be made a day's pleasure, not a day's work, as is too often the case when a woman is aboard.

The subject is one in which the trade may well interest itself. There are not a few new tandems in stock in not a few factories, and more old ones reposing unused in various homes throughout the country. If the makers do not care to fit the motors, it opens a field for the dealer into which he might profitably project himself.

A day's ride on singles with the average woman means a "dawdle" or crawl, which holds small pleasure for the average man. If the road is hilly or the day windy the dawdle often becomes a walk. Cycling with

womankind thus becomes a much-mixed pleasure. Theoretically, on a tandem all this is avoided. In practice, however, tandem riding, if not a crawl or walk, is frequently too much like manual labor—for the man. If he can but have a motor to help him do the pushing, all troubles and labors are minimized and cycling with womankind can be enjoyed to the full and as fancy paints it.

Here's to the motor-driven combination tandem! May it increase and multiply! It supplies a long-felt want.

Some Saddle Styles.

One explanation of the wonderful vogue which the suspension type of saddle is having this year is its superior merit in the matter of comfort when the rider is not pedalling.

The incoming of the coaster-brake is responsible for a vast increase in the number of riders who coast. From a coastless nation of riders we passed at one bound to one indulging habitually in this pleasant and exhilarating exercise.

It is well known that the most difficult task set a saddle maker is to turn out a saddle that will be equally comfortable when pedalling and when coasting—whether with feet on the pedals or on foot rests. The shape that would answer perfectly on one occasion would be just the reverse when the rider turned from pedalling to coasting, or vice versa.

For coasting, a short saddle with a broad base and some spring was the very best shape that could be turned out. The rider's weight came mainly on the base, and the more there was of it the better it suited.

But when pedalling was resorted to a longer front part to the saddle was needed. By giving support to the legs this helped the rider in his pedalling, and as nearly all his weight was taken off the base of the saddle there was no necessity for its being as wide there as usual.

Until last year nearly all types of saddles were designed to be comfortable when pedalling, that being nearly everything the rider did.

Consequently, for coasting these saddles presented hardly any attractions. But as very few riders coasted, the lack of this was little felt.

With the appearance of the coaster-brake last year the demerits of such saddles were quickly and keenly felt. Besides, they had

been in fashion for a long time, and riders were ready for a change.

The two causes operating together have probably had much to do with the renewed popularity of the suspension type of saddle.

One of the Weak Points.

Store-window value is something that the average dealer seems unable to understand.

No matter how much he is reminded that his window should bring in a return, or how much he sees merchants in other lines turn theirs to good account, he still remains sceptical or indifferent to the subject of his own window.

Here and there dealers of a different stripe show what can be done by a little judicious attention devoted to a window, but even this example is lost on his fellow.

There is a store in Chambers street, New York, which is made to pay, in dollars and cents, a round sum each year. The head of the concern regards it as a good investment, and lavishes on it an amount of attention equal to that bestowed on newspaper advertising.

Two or three times a week the window is cleaned out and dressed anew. The models of bicycles shown one week differ as much as possible from those on view the next.

Along with them are run a few second-hands. Placed in a conspicuous place in the window is an attractively got up card devoted to second-hand machines. Attached to it is a typewritten bulletin of specially attractive machines, and this is changed at regular intervals.

Passers by stop, look in the window, note the prices of the second-hands, and frequently come in the store and ask to see the latter. From these visits sales frequently result.

There is nothing in any way wonderful about this. It should even be said that there is nothing unusual. But, unfortunately, this would be very far from the truth.

It is, however, an example which could be advantageously followed by other dealers.

The Alert Agent.

The alert agent, instead of waiting for something to turn up, turns up something. He changes his window display and show-cards, offers particularly tempting values, and employs every device suggested by a nimble wit to transform dulness into activity. He is bold and persistent, and therefore in most instances wins his way, just as

faint-hearted advertising spells defeat and discouragement.

Arresting the Passer-by.

Just at this season of the year it is not difficult to attract crowds at the different bicycle stores. All that is necessary is to show something of a novel and interesting nature. But it has been a great many years since anything created the excitement that is attending the exhibition of motor bicycles throughout the country. The news of their presence seems to spread spontaneously, and only a very short space of time is necessary to carry the news in every direction.

An Example that Inspires.

The energetic and unmistakable manner in which the Eclipse Mfg. Co. is seeking to maintain the price of the Morrow coaster-brake is deserving all praise. It demonstrates that where there's a will there is a way of stopping price cutting. May the Eclipse example inspire others to go and do likewise! Its moral effect is above price.

It is seldom nowadays that there is any shortage of bicycle workmen, but the spring rush at the factories has resulted in a few faint notes of this kind being heard recently in New England. It is said that there is a scarcity of experienced men, and no others can be utilized owing to inability to find time to instruct them in their work.

It's a tall task the Western jobbers are setting for themselves—that of grappling with the mastadonic mail order houses. But the fight is bound to come, and it might as well come now. There can be no two minds as to which side the manufacturer who truly values his reputation and his price will support.

Second-hand bicycles are not, even yet, a drug on the market. Intelligent dealers still regard them with favor. Taken in limited numbers and at the right prices, they constitute an asset of value and one fairly easy of disposal. Especially is this true if they are of first-class make.

Now comes the season when side lines are least needed, consequently least thought of and talked of. The average dealer has his hands full taking care of the spring rush, and wisely gives it the lion's share of attention.

SENSE FROM THE BENCH

Judicial Logic as to Motorcycle's Rights Which a Worcester Jury Ignored.

Three weeks' reflection has but served to impress on Messrs. Havener and Adams, the Worcester (Mass.) tradesmen against whom a Worcester jury found verdicts in the sum of \$700 each, a greater sense of the enormity of the verdict.

An appeal from the decision will undoubtedly be made. Havener writes that steps looking to this end are being taken this week, and that a more satisfactory termination of the new suits is confidently looked for. Just what dispositions will be made on the part of the defence has not been determined, but the Associated American Motorcyclists will, as before, extend legal assistance to the accused men.

The Judge's charge to the jury in this case was in line with nearly every judicial opinion pronounced on the motor vehicle. It affirmed its right to the public roads in most unequivocal terms, as will be seen by the extracts which follow:

"You know that when the ordinary bicycle came into use, and before men and horses became used to it, it was the subject of constant abhorrence and fright to horses, and people had to be very careful in driving in the streets lest their horses should be frightened by the sight of an ordinary bicycle, especially, as you remember, those tall bicycles which were first in use. Nevertheless, our courts have said that the bicycle had the right to be in the way; it was not a noxious animal which anybody had there at his peril.

"As we come down in the march of time we find that new and unusual forms of conveyances, vehicles, or carriages, as they may be called, are being introduced, and I have no doubt they have come to stay. However, if those vehicles which are introduced frighten horses as they are first introduced, if they are vehicles which are of the character which would naturally tend to frighten horses because of their strange and unusual appearance, because of strange noises which they emit, it certainly is the duty of the person who is driving or using those carriages to take the care proportionate to the danger which is likely to be created by their use until such time as the public have the right to become acquainted with the dangers which attend them.

"When they have become acquainted with such things, and horses have become acquainted with the character and the noise which they make, it is very apparent, of course, to anybody that that care will not be necessary on the part of the motorman, or whoever drives them, at the time that it is in the beginning.

"So you cannot say in this case that a vehicle, however you may find, however you may describe it, is a vehicle which, as I

said before, is a noxious animal, a thing which a person uses and exercises at his peril, in the street.

"It becomes a question of fact for you to consider, and every jury to consider, before whom the question is brought, as to whether or not, considering the way in which it is used, considering the noises which are emitted from it, considering its general appearance, as to whether or not a person who is using it, knowing all those things, knowing the effect it has upon animals near to which it may be brought, whether or not that person uses the care which he ought to use under the circumstances, in his management.

"Perhaps I ought to go one step further before we approach the case, and say that a person who is driving a horse upon the street has no peculiar rights, no greater right over anybody else that has a right to be in the street. It is his duty to exercise care. It is his duty to anticipate, perhaps, that strange things will appear in the street, and to take care and use care which his knowledge of the probable existence of such things would call upon him to exercise.

"But, assuming that the man did know that such a condition of things did exist, that those kind of things were used in the street, that they were likely to pass him, it would be his duty to have regard to their appearance, to their coming in the street, as well as it would be his duty to have regard for the appearance and character of other teams.

"So that in this case you have to determine, in the first place, upon the testimony, just what was the character of this machine. Was it a machine, as the defendants say, that emitted a noise that you could not hear over five or ten feet from it? Was it a machine from which came no dust, no smoke, no steam, or was it a machine which the plaintiff says did emit both smoke, or something similar to it, and steam?

"Was it a machine which, as some of the witnesses say, went 'chuck! chuck! chuck!' that you could hear quite a considerable distance away from them, say, one hundred feet? And if that was the condition of things, was that a condition of things which was likely to in all probability cause a horse, when properly driven and under proper control, to be frightened? Was it something which was likely to occur?

"Ought these defendants to have known, if you find that that condition of things existed, that in passing teams they were likely to be frightened if they passed them at all? If so, and if you find those conditions of things existed, then you may ask yourselves as to whether or not, when they passed this plaintiff, if you find they did pass the plaintiff, they exercised that care which reasonable and ordinary prudence, taking into consideration the circumstances which you find to exist as regards the peculiarities of this machine, was likely to cause harm to this plaintiff, and did they take care so far as they were able to avoid

it? If you find they did not, if you find that was the situation, then the plaintiff is entitled to recover, regardless of any other consideration except the consideration of want of due care on his part.

"However, the story goes further, and there is a difference in the story between the plaintiff and the defendants which is a radical one, and which, as you believe the one side or the other, may determine as to whether you shall find for the plaintiff or defendants. The defendants say that as they went down Belmont street—at least they inferentially say—Corey was behind them, and as they were passing down the street one of them turned around and saw that Corey had lost control of his horse and it was running away with him, and that they opened and he passed between them, and that he struck a team of the brewing company, and that their act and their conduct had nothing whatsoever to do with the starting of the team and this runaway.

"If you find that story is true, that is the end of this case, and it would not be necessary for you to proceed any further or with any other consideration. That is absolutely an end of the case, because the cause of the injury, under those circumstances, did not directly or indirectly result from anything that these defendants did, but related back to some intention and undisclosed cause which set this horse in its wild motion.

"However, assuming that you do not find that is true, then the question arises, What are the facts as disclosed by the testimony in relation to the other history of the case? Corey says that he was in a walk, or about a walk, going down hill; that these defendants passed him, one on the right side and one on the left. He said that he could have controlled the horse if certain other events had not happened. And he says that those facts are these—that when these defendants were ahead of him and saw his horse coming along behind them, running, as he said, that they opened and let him through, and that he was about getting his horse under control again, and would have done so, they again rushed past him, in the form which he says, and that threw the horse into such a frightened condition of things that he passed entirely out of his control and struck and smashed into the team.

"Gentlemen, if you find those facts are true, in whole or in part, you must find for the plaintiff, because, if these defendants saw that this man was in distress, so far as the control of his horse was concerned, and nevertheless pressed upon him, knowing that if they should do so it would cause the horse to be still further carried out of control and result in harm to this plaintiff, then the defendants are negligent.

"You must find, however, in order to arrive at that result, that these defendants saw that the horse was running away, saw that the horse was being frightened by their machinery, or ought to have known that it was being frightened, and then pressed forward, regardless of the dangers which might come to the plaintiff.

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Interested
In
Automobiles



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SAMPLE COPY ON APPLICATION.

HARTFORD TIRES

**WITHIN
THE REACH
OF ALL.**

the luxury of the best tire,

**THE
HARTFORD
TIRE,**

cannot be overestimated
by those desiring *perfect*
bicycle satisfaction.

It lasts twice as long, gives
three times the ease of any
other tire, and it can be de-
pended on for hard service
in fact—

"IT IS AN HONEST TIRE!"

Under all conditions it
has been maintained as
such—and always will be.

The Hartford Rubber Works Co.
HARTFORD, CONN.

HIS FATHER'S SON

He Alone can Ride Motocycles in Central Park—Workings of Tammany Favor.

To a motorcycle belongs the honor of being the first gasoline-driven motor vehicle admitted to Central Park, New York. Although this permission was granted in December, 1899, the knowledge of its existence has just come to light.

The motorcycle in question is the property of Charles T. Dugro, a Princeton student and the president of an automobile club recently organized at that university. What is much more to the point, however, is the fact that he is the son of Justice Dugro, who occupies one of the most prominent seats among the elect of Tammany Hall. Any request made by either Justice Dugro or his son is very likely to be granted by the Park Commissioners.

Commissioner Clausen of the Department of Parks, who issued the permit, evidently feels called on to make some very elaborate explanations of his action.

"Mr. Dugro's permit was issued," he said, "purely for experimental purposes. It is revocable, and I certainly shall not allow it to stand if the manufacturers of other machines feel that it is an unjust discrimination against them. Mr. Dugro lives near me, and when he applied for his permit he was the only person making an application of that kind.

"I inspected his machine, and believed it free enough from the objections which I find in gasoline automobiles to warrant its trial as an experiment. Mr. Dugro has been absent from the city so much, at Princeton, that the permit had escaped my memory, and it has been of little use as an experiment.

"Mr. Dugro's machine, however, is a motorcycle, not an automobile. It is light, like a bicycle, and more easily controlled than gasoline carriages are. It makes less noise, too, and is generally less objectionable.

"There is no hard-and-fast rule against gasoline automobiles as such. None of them have been able to obtain a permit thus far simply because none of those which I have seen have the qualities that I consider necessary for admission to the park. My objection to all the gasoline automobiles for which I have received application is that they are worse when the machines are halted than when they are in motion, and they become a serious nuisance in a crowded driveway.

"They cannot be handled nearly so easily as the electric machines, because shutting off their power involves hand pumping to start it again. On the other hand, when the gasoline automobile is stopped by removing the power from the driving gear while the engine is allowed to run on, the whirring of its balance wheel, the noise and odor of its ex-

haust and the brewing and churning are all accentuated to a degree which makes it more objectionable than when the power is being expended in driving the vehicle.

"When a permit is sought for a gasoline automobile which is free from these objections I shall be pleased to grant it. Meanwhile, though the machine used by Mr. Dugro is of a very different nature, I shall certainly revoke it if the manufacturers of other gasoline vehicles feel that I have made an unjust discrimination in its favor."

Guaranteed not to Budge.

It is so long since anything new in the line of bicycle chains has appeared that the chain with the new rivet now being marketed by the Indiana Chain Co., of Indianapolis, seldom fails to command attention wherever shown. The innovation is one of those that the average man wonders "was



not thought of long ago." It is shown by the accompanying illustrations.

The Indiana people state their case very forcibly, too.

"Suppose the old chain is accurate at first," they say. "Test it to 800 pounds, and the large ends of the rivets hold fast, the small ones give a little.

"Hammering a piece of steel, of course, makes it better. We swage every centre block to size under great pressure, and while



all three-sixteenths chains formerly broke at from 700 to 800 pounds, our chains are all tested to 1,300 to 1,500 pounds.

"So we had to have a stronger rivet. The illustration shows it—a rivet with absolutely uniform ends; none smaller, none larger. Wire can be drawn to exact size, but it cannot be turned so, in a screw machine. Consequently when we put these rivets, with milled ends, into a chain, we do away with all that variation of the past, and are able to furnish a chain of absolute uniformity of pitch and greater strength and less wear."

Fitted with this rivet, Indiana chains are now "absolutely guaranteed not to budge under 1,300 pounds."

The Frenchman's Bald Fake.

"Major" Taylor, the Iver Johnson "star," is now in Paris, where he is viewed as a cross between a hero and a curiosity.

Writing to the Iver Johnson people, he tells a story showing that French cupidity is keenly awake to an opportunity when it offers. Having occasion to have a tire cemented, Taylor left his wheel in a Paris cycle store. Returning an hour or two later, he was amazed to find two large placards in the show window heralding the statement that "Major Taylor rides a ——— chainless."

It is needless to add, however, that Taylor is riding and will ride an Iver Johnson chain-gearer.

THE STOCK BOOK

How it is Kept and how the Keeping of it Helps the Retailer.

Few dealers who have ever taken the time and trouble to keep a stock book have regretted it. It may at first seem to be a large expenditure of effort for a remarkably small return, especially where the business is a small one and memory serves in a great many cases; but sooner or later it demonstrates its value and proves a remarkably good investment.

The function of a stock book is to keep an exact record of every bicycle that comes into the store, either new or second-hand. Its entire career is then readily traced, the price paid for it, its description, the amount of repairs put on it, if any, the price for which it is sold and the net profit—or loss. The dealer is enabled by its means to keep tab on every transaction he makes, and while this information is all obtainable from other books it is never in as convenient form or as available; consequently, if a stock book is not kept, on numerous occasions time cannot be spared for a search and the information is not brought to hand.

A stock book that is spoken of very highly by one who has used it is marked out in this manner:

"Twelve columns should be ruled. In the first you have your own stock numbers, these running consecutively. Some dealers, to make their sales look large with people who come with repeat orders, miss every other number, and so on; but the advantage of consecutive numbering is that it tells you at once the number of your transactions in a given period, say, three months or a year.

"You place this number on your invoice and keep the maker's number for your own information. The second column contains the name of the machine, and the third the maker's number. The fourth and fifth are devoted to gear and height of frame, so that you can run your finger down and pick out a particular length of frame or gear in a moment, as these are often items specially required.

"In the sixth column you have the description of the type of machine. In the seventh you include details of the machine (saddle, tires, color, etc.), useful for future reference in many ways.

"In the eighth the date when the machine is received, and in the ninth the folio in the journal. This serves the treble purpose of showing that the maker's invoice for that machine has been passed, and so saves you the possibility of being twice debited (not at all remote), of affording a reference, and of keeping the financial side private from such assistants as must see the stock book, but whom you do not wish to acquaint with financial details.

"In the tenth and eleventh columns are entered the name of the buyer and the date, and in the twelfth the journal folio regarding the sale."

DEALERS, DON'T WAIT

for promises, or for motor bicycles that are going to be made. When you have a customer for the latest in bicycles, instead of disappointing him, strike while the iron is hot. More customers are lost by being put off than from any other cause. Don't lose a customer by procrastinating.

AT ALL THE SHOWS held this year we have been THE ONLY MAKERS OF MOTOR BICYCLES to show more than a single sample. At the Chicago Show the

AUTO-BI

space was the one center of attraction, because we had plenty of goods on view, in addition to the AUTO-BIES that were constantly on the track

As an example of what was done: One of our motor bicycles, which was placed at the disposal of everybody, was continuously ridden for two (2) hours one afternoon, and was only then stopped because the rider had an engagement to keep.

We had a complete line of motor cycles on exhibition, and all of the machines were shipped at the close of the show to progressive dealers. As one dealer put it: "I don't care what others may claim, you have got the goods and can ship." Many people in my town will want motor cycles, and I am tired of waiting on promises. Ship me a machine and give me the agency for the AUTO-BI."

The Thomas AUTO-BI retails for \$200. We have the goods; we make immediate deliveries; we have more than a sample.

E. R. THOMAS MOTOR CO.,

106 BROADWAY, BUFFALO, N. Y.

THE GOODMAN COMPANY,

124 Tribune Building, New York.

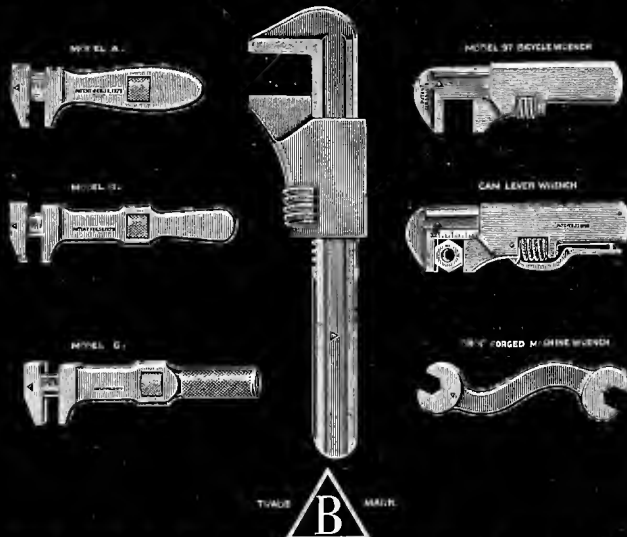
Enclosed find \$2.00 for which enter my subscription to the BICYCLING WORLD for one year, commencing with the issue of

Name

Address

THE B & S. WRENCHES
ARE STANDARDS OF EXCELLENCE
BUY THE STANDARD AND GET YOUR MONEY'S WORTH

10 & 14 INCH AUTOMOBILE WRENCH



EVERY WRENCH BEARS THE COMPANY'S TRADE MARK

THE BILLINGS & SPENCER CO.

ESTABLISHED IN 1899
HARTFORD CONN. U.S.A.

ECHOES FROM ENGLAND

Bad Weather the Loudest cry—Tire Bands, Surface Carburettors and the C. T. C.

London, March 20.—Truly the elements have combined against the motor trade, and particularly the motorcycle trade, during the present year. Here we are well within three weeks of Easter, and still the roads are inches deep in mud and the snow and sleet continue to descend. Small wonder is it that there is so far but a weak demand for motors. A look along the Viaduct discloses the fact that until the weather brightens up nothing is likely to be done. People hardly stop to look in at the windows, so depressing are the atmospheric conditions when any idea of outdoor exercise is contemplated.

It is bad enough for the cycle trade, but this does not suffer to the same extent, because the outlay involved is not so great, and also because those with little money are usually the people to defy the elements. To the city clerk Easter is the holiday, and he scrapes enough together to get his new bicycle to ride then, and ride he will, no matter what the weather may be. But the moneyed motorist is rather different. He will either go on his big car for his holiday or by train. The motocyclist, or rather the would-be motocyclist, is not unlike him. He prefers comfort, and so, until the fine weather actually arrives, he is not a certain buyer. Here and there may come a few enthusiasts, but their number is very, very limited. So, for the present, the machines stay at the depots, and the salesmen kick their heels about waiting for customers. Given a really promising break in the bad weather and this scene will soon be changed.

Another thing which holds the trade back is the attitude of the county councils and of the general press. The idea of numbering, and no end of possible pains and penalties in consequence—for it must be remembered that numbering will give the power to any busy-body to lodge complaints entirely irrespective of right or wrong—makes many people hesitate. The other day I asked a casual acquaintance who had, I knew, been thinking of buying a motorcycle for some considerable time, if he had purchased a machine. He replied that he had not, and thought that he would wait until he saw how the numbering business went on. There are many people in the same position, so that, whatever the councils may say about not wanting to stop the development of a new trade, there can be no doubt that they are going pretty far on the road to doing so.

I have been using Smith's compressed rubber bands on the tires of my motorcycle during the winter months, and so far they have never given me any trouble. On the

contrary, they have proved a great boon and a saving over the plan of running with the covers only. A friend who did likewise tells me that he is more than satisfied, and that an examination of the covers shows that although they were in a somewhat bad condition when the bands were put on, they are no worse now, as the extra covering has kept out the water very well. It is something to find any means of making motor tires last, for as a rule their "life" is a short and not always a merry one.

There appears just now to be a dead set against surface carburettors, and there is some talk of doing away with them on many of the motorcycles. Why this should be I do not know, for as a rule they seem to work well. My experiences with float-feed carburettors, especially in connection with high-speed motors, is not altogether favorable. They speedily become clogged with dust and dirt, and it must be remembered that in the case of a motocyclist they have to be carried low down, and cannot well be protected to any great extent. During the coming season I fancy that we shall see a great change in the generally accepted ideas of carburettors, which are now held to be necessary. There are several inventors on the warpath with the object of dispensing with such contrivances altogether, but as yet these gentlemen only seem to have partially succeeded, and, moreover, have confined themselves to comparatively slow-speed motors. If the carburettor on the motorcycle could be dispensed with it would leave a great deal more room for the storage of extra petrol, or for a water tank, for I think that the popular favor is going round to water cooling, even for small motors. Many of the best-known motocyclists here say that a water-cooled head to the motor means an astonishing difference in speed and in trouble involved. Those who have tried it for long maintain that nothing would induce them to return to the air-cooled engines.

The decision of the Cyclists' Touring Club to reinstate the word "cyclist" in the form of application for membership, which was arrived at after a lengthy discussion at the annual general meeting of the club last Friday, is supposed to have the effect of preventing wicked motocyclists and other obnoxious personages of the same cult joining the association. Of course, this is bunkum, pure bunkum, and motocyclists and motorists generally will be allowed to share the privileges of paying the subscription just as usual. The C. T. C. annual general meeting is always a farce, because such a very small percentage of the membership are present. But the vote taken is only another instance of the intolerable spirit which is always manifest in this country when anything new is concerned. It is not so many years since cyclists were looked upon as outlaws, people to be avoided under all circumstances and persecuted as much as possible. Yet these very same cyclists are now prepared to join

in a similar crusade against motorists generally, and even motocyclists! One would have supposed that they might have remembered a little about their own fight for their very existence.

Will Obliterate Space.

August Nowak, a Jeffersonville (Ind.) inventor who has several times threatened to startle the world with his inventions, is said to be about to organize a company to manufacture and sell his latest product, an improved bicycle. The latter is thus described, with more or less lucidity:

"With this invention attached, the motor part of the bicycle will consist of the rear wheel and sprocket, the front sprocket found on all wheels, and a middle sprocket, added by Nowak. The two sprocket wheels have the same diameter, and the cog on the middle wheel is the same size as the cog on the rear wheel. According to the inventor, one revolution of the first sprocket will cause three revolutions of the second sprocket, and the rear wheel will revolve nine times.

"The chain of the first sprocket works over the cogs of the added sprocket, and the chain of this added sprocket works over the cogs of the rear wheel. The chains can be geared up or down, and Nowak will have a machine that will simply obliterate space."

How a Point is Lost.

A striking example of the manner in which the point of an advertisement is lost appears in the conspicuous advertisement of a well-known bicycle that is now appearing in the expensive illustrated weeklies. The ad. occupies generous space, and pictures a wheelman coasting, his arms folded and a look of enjoyment on his face. The reading portion of the advertisement refers to coaster-brakes, in heavy black type, but the wheelman is depicted, not using that device, but with his feet perched on the front forks of his bicycle!

Intend to Prosecute.

Chicago's Grand Jury, has begun an investigation into the charges of blackmail made by the Mead Cycle Co., of that city, against two South Chicago tax collectors, as related in last week's *Bicycling World*. It is expected that the men will be indicted and proceedings against them commenced at once.

Trying to Agree.

For several weeks past negotiations have been in progress at Syracuse, N. Y., between the repairers on one side and the dealers and jobbers on the other. A number of matters are in dispute, and although several meetings have been held, the last one on March 27, an understanding has not yet been reached.

Just Like a Cycle Show.

It was difficult for the cycling visitor at the Chicago Automobile Show to realize that he was not attending a diluted cycle show. With few exceptions the exhibits and those in charge of the exhibits bore names that were long, or closely identified with the cycle trade.

Care of Chains.

Of recipes for keeping chains in good running order there is no end; the trouble is that so many of them differ widely. One of these which appears to possess considerable merit is as follows:

Melt down two or three pounds of fresh mutton suet in any suitable vessel, a frying pan for choice, and add to same rather more than a quarter pound of yellow beeswax. When both are fluid stir in sufficient flake graphite until the mixture is well thickened. Then immerse chain, which has been previously well cleaned with kerosene, and after keeping the lubricant fluid for some time take the pan off the fire and allow it to cool down without removing the chain. Then melt up again for about an hour, and remove chain as soon as mixture is cool enough to permit of it. Do not wipe or hang up chain, but place it extended on its side on a board without stretching it taut, and when quite cool fit it onto chain wheels. The cooled compound of mutton fat, beeswax and flake graphite will have entered between all wearing surfaces, and will form sleeves of lubricant between rollers and pins, which will keep the hardest-ridden chain

most efficiently lubricated for over two months through all weathers.

Coasting the Rule now.

To realize how enormously coasting has grown during the past couple of years one has but to take up a position on a hill on some much-frequented road and observe the passing wheelmen.

The coaster brake machines can be spotted at the beginning of the descent, their riders starting to coast almost instantly. A very large proportion of the whole they now constitute, too, and it is very evident that it will not be very long before they form a majority. Of the fixed gear machines a considerable number are permitted to coast, also, their rides seemingly having lost the contempt for this practice which they entertained a short time ago.

Of the pedalling riders the greater portion are of the genus scorchers, who scurry along, pedalling away as if their lives depended on getting to their destination in the shortest possible space of time.

If you find your business unsatisfactory, investigate the cause and discover the reason. Then remedy the evil.

Curtailling use of Nickeled Parts.

In Germany a movement is said to be on foot to convince the manufacturers and riders of cycles that the many electroplated and nickelled parts on cycles would be much better if they were enamelled, as the latter keeps longer. The cycle show held at Leipzig in 1900 showed already a great number of nickelless cycles whose handle bars and other parts were plainly and effectively enamelled, and it is expected that a still greater number will be seen next time, as many cyclists favor such machines, owing to less and easier cleaning and greater durability. A reduction in price is not expected, as one process costs as much as the other.

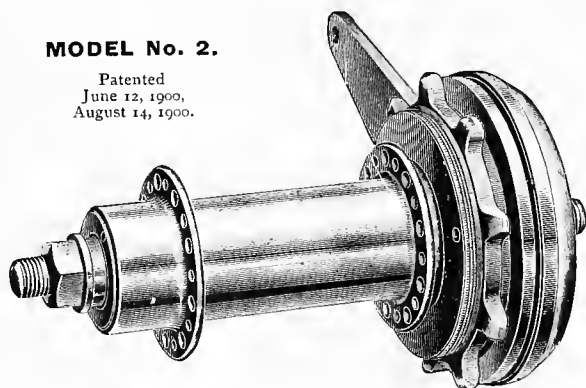
What Flakes it Sell.

The J. Stevens Arms and Tool Company, of Chicopee Falls, Mass., report that the sale of their Climax coaster brake is exceeding expectations. The fact that it contains but five parts, that it weighs but 12 ounces, that it is easily attached to any hub without spreading the frame, and that it permits the wheel to run free not only forward but backward, are features, they say, that rarely fail of effect.

"E Z" COASTER BRAKE.

MODEL No. 2.

Patented
June 12, 1900,
August 14, 1900.

**SIMPLICITY****LESS PARTS THAN ANY OTHER COASTER MADE.**

With the "E Z" COASTER BRAKE fitted to your wheel all fear at once leaves the most nervous person, for you are in position to stop the wheel immediately—and always have it under control.

Your 1901 wheel should be fitted with the "E Z."

Any dealer can furnish it.

Send for Catalog "C."

Sole Manufacturers, REED & CURTIS MACHINE SCREW CO., Worcester, Mass.



STEEL BALLS

**The Best in
the World.**

EXCELSIOR MACHINE CO., BUFFALO, N. Y.

The Central Distributing Co., Sole Selling Agts, 302 Mooney-Brisbane Bldg., Buffalo, N. Y.

IF WE CAN GET

our catalog and quotations into your hands we are reasonably certain that we will hear from you again. If we can show you our bicycles we know that even more surely that you will want

THE INDIAN AGENCY.

The catalog specifications and guarantee give an idea of the quality; the quotations prove our liberality; the list prices, \$25, \$30 and \$35, are the popular ones; and an examination of the bicycles themselves "will do the rest." We are sure of it. Write us.

Hendee Mfg. Co.,
Makers of the Indian Bicycles,
Springfield, Mass.

DIAMOND NOT DROPPED

New Cross Frames From Across the Water Retain Present Shape.

Not since the days of the early safeties has there been such a scramble for novelties in frame design as now prevails in Great Britain. Cross frames lead, of course, existing in every imaginable form, scarcely a maker of prominence having the courage to go before the public without something of the kind.

Novelty is one of the chief claims of these frames, and most of the designers seem to think that when this is said there is nothing more necessary. But it is very plain that it will take more than mere novelty to dislodge the diamond frame from the position it has occupied for so long, and the sooner this fact is understood the better it will be for all concerned. Acting on this theory, one English designer has submitted a frame which retains the lines of the diamond, with a supplementary tube.

In this frame, says the describer, a tube runs from the bottom head lug across the seat tube, and joins the rear forks at the bridge or the point nearest the wheel. It has been generally admitted that to strengthen one part of a construction while leaving another weak is a waste of time, trouble and material, and a mechanical monstrosity when finished. Symmetry of design may be looked upon by some as the *sine qua non* of cycle-frame construction, but then it must be borne in mind the symmetry to the trained mind is what strikes such a mind as being adapted to resist strains which will be put upon it, and hence the truest symmetry is synonymous with correct mechanical design.

To a trained and expert draughtsman a badly designed machine or piece of machinery, although to the lay artistic eye it may seem good in effect, comes as a shock, just as a design in architecture which is stiff and ungraceful comes as a shock to the true artist. The cycle trade to-day has no time to build cycles for purely artistic appearance. If a change is wanted in a frame such a change must of necessity have some mechanical advantage back of it, either in an all-round reduction of material with greater strength or the same strength with a correspondingly decreased amount of weight.

It is generally conceded that the rear portion of a cycle frame is the weakest, owing to the exigencies of narrow treads and the large gear wheels which are now fitted. The whip of the rear frame of the machine is a much more serious defect than a slight lateral give in the front portion, for it is through the rear frame that the power of transmission is passed, and sideways at that. Granting that the whip is due to the narrow tread and the necessity of clearing the front chain wheel, it must be admitted that

such whip, or bending, or distortion, takes place between the bracket and the rear-fork bridge. Such is, in fact, the case, and any front-frame design which is intended to strengthen the front, and in which no member reaches this point, is deficient in that it increases the rigidity of the front and does not in any way correspondingly strengthen the back. It is like putting an extra heavy link in one end of an iron chain and thinking that such a link will strengthen the whole series of links.

In the design referred to this point has been taken well into consideration, and the lateral rigidity of the frame is increased across its whole length, and not only in the front part. This is a consideration which ought always to be borne in mind.



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

For Tire Infringement, \$45,000.

The House of Lords having upheld the lower courts in the judgment for plaintiffs in the famous suit of the North British Rubber Co. vs. the Gormully & Jeffery Co. for infringement on the Clincher tire, damages to the amount of £8,941 10s. have been awarded the North British Co. The defendants did not appear to contest the award.

How Export Trade is Hurt.

Most of the manufacturers of bicycles in England and America put more than one grade on the market. It frequently happens that second and third grade machines are sold as first grade in this colony, says the New Zealand Wheelman.

Call for Short Chains.

"I feel as strongly as a man can feel that this year will witness a marked revival in cycling interest," said Frank W. Wood, of the Indiana Chain Co. "One of the straws that point strongly that way is the increased call for short chains—chains for ladies' bicycles."

RIMS AND TIRES

Differing Cross Diameters Played Havoc—Move in the Right Direction.

"That is a good move made by the G. & J. Tire Co.," said a veteran dealer to the *Bicycling World* representative recently. "I refer to their decision to alter the construction of their outer covers so as to make the 1½-inch, 1⅝-inch and 1¾-inch sizes all fit the same size rim.

"No one who has not been through the mill can understand the trouble and expense entailed by a lack of standardization," he continued. "It is difficult nowadays to even conceive what we had to go through a decade or less ago. No two parts were alike, and the stock that had to be carried in consequence was something enormous. If you let the stock run down you were certain to want just what you were out of, and it was not until a new supply was received that the run on the missing parts ceased.

"In the matter of tires, for example, our lives were made miserable by our inability to harmonize the different sizes desired by purchasers with the rims on the machines. We took considerable risks by mismatching them, and sometimes we had to pay the piper; but it was not easy to see what else there was to be done; changing the rims was a bigger and more expensive job than we cared to undertake, and it was either this or put tires on rims which were not intended to take them.

"Of course, the trouble could have been pretty nearly obviated by simply establishing a standard inside diameter for both rims and tires. Then it would not have made much difference what tires we put on. They would have matched all right, and there would have been no ground for complaint.

"But this would have made the wheels too small. They would have measured less than 28 inches in diameter, consequently the cyclometers would not have registered correctly, and the rider would have been at sea generally. As he was just then very much devoted to a compilation of mileage records, and very particular about everything connected with his machine, such an innovation would not go.

"There have been so many changes since then, all of them in the direction of standardization of parts, that it is not surprising to learn that there will not be any more trouble in the case of at least one make of detachable tire.

"The dealer can now fit practically any size outer cover to the rim, and the two will match perfectly. There will be a slight difference, in the outside diameter, of course. The smaller the cross diameter of the tire the smaller the wheel it will make. But that is not a matter of any great importance, and few riders will ever notice it."

COMFORT

with

SPEED

is the

CUSHION FRAME

Motto.

The CUSHION FRAME is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold **WITHOUT IN THE LEAST DETRACTING** from the **SPEED** or **POWER** of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy, "get there" riders who at first "scoffed" the idea of **COMFORT** being combined with "speed and power" in a bicycle.

HYGIENIC WHEEL CO.,

220 Broadway, New York.

Owners of the Cushion Frame Patents.

OUR
CRANK
HANGER
DOES
IT.The
RacycleDOES
WHAT ?
MAKES
IT RUN
EASY.FAUBER PERFECTION
HANGER.

Unequaled in any of the Points which make
a PERFECT Hanger.
LIGHT, SIMPLE, DURABLE.

W. H. FAUBER, Manufacturer, CHICAGO, U. S. A.

The Retail Record.

CHANGES.

Pulaski, Va.—J. A. Nowlin will close.
Brantford, Conn.—J. H. Morton, closed.
Abilene, Kan.—J. J. Kropff succeeds Frank James.
Stevens Point, Wis.—A. B. Case succeeds J. L. Nutter.
Danbury, Conn.—G. F. Allen, removed to 22 Elm street.
Manatawny, Pa.—Mensch & Mest succeed J. D. Brumbach & Son.
Worcester, Mass.—A. B. F. Kinney & Co., removed to 539 Main street.
Buffalo, N. Y.—Finn & Cretian, Main street, succeed Finn & Sullivan.
East Las Vegas, N. M.—Maurice Biehl and Henry C. Young have combined their stores.

NEW STORES.

Gilford, Mich.—Leslie Reed.
Athol, Mass.—W. W. Oliver.
Galion, O.—Arthur R. Shade.
Oshkosh, Wis.—Hinze & Meyer.
Warren, Mass.—Marland Bros.
Torrington, Conn.—C. D. Clark.
Roslindale, Mass.—A. L. Leslie.
Plainville, Conn.—E. G. Bassett.
McComb, O.—Ira Scott, repairing.
Elmwood, Ill.—Wheeler & Keegan.
Wareham, Mass.—W. G. Woodruff.
Glastonbury, Conn.—John C. Smith.
Harrison, Ont.—William McConnell.
Huntington, Ind.—C. W. Koehlinger.
Campbell, Mass.—George J. Donahue.
Yarmouth, Me.—Willis True, reopening.
Bristol, Vt.—W. H. Andrews, O'Neill Block.
Mystic, Conn.—Nelson J. Baker, repairing.
Guilford, Me.—C. M. Weymouth, repairing.
Danbury, Conn.—James Foy, 8 Liberty street.
Taunton, Mass.—H. M. Copeland, Bay street.
Westboro, Mass.—W. H. Little & Co., South street.
Lowell, Mass.—Dempsey & Co., 33 Branch street.
Westport, Conn.—Lockwood & Ives, repairing.
Lewisville, N. Y.—William La Mont, repairing.
Taunton, Mass.—F. Michaud, 38 Whitten street.
Dalton, Mass.—G. J. Renter, Dalton Block, reopening.
Utica, N. Y.—E. B. Hague, Main street, reopening.
Poughkeepsie, N. Y.—James Merriweather, repair shop.
Findlay, O.—Gunderman & Beall, South Main street.
Tiger Bay, Fla.—J. M. Lowry, branch of Bartow, Fla.
Lowell, Mass.—John H. McMahon, 454 Central street.
Genesee, N. Y.—George Teasdale, repairing, reopening.
Penn Yan, N. Y.—Ellis & Wilkins, Water street, repairing.
Collinsville, Conn.—J. Levanway, Maple avenue, repairing.

Natick, Mass.—T. E. Gleason, Washington and Court streets.

Ithaca, N. Y.—Henderson & Rouse, State and Geneva streets.

Utica, N. Y.—H. J. Moss, Oneida Square, repairing, reopening.

Los Angeles, Cal.—W. B. Horner, Bailey and East First streets.

Brockton, Mass.—McElaney & Tonry, shoe dealers, have added bicycles.

East Rochester, N. H.—E. T. Corson & Co., Pleasant street, repairing, reopening.

Colors That "Catch" the Negro.

By all odds the weirdest finish of the year is a bicycle of a sickly yellow with a vivid blue head and red spokes. The effect defies good taste, but when a Bicycling World man recently remarked the wheel to a dealer who had it prominently displayed it brought out an unexpected response.

"I wouldn't ride it for love or money," said the dealer, "but it has caught the eye of every negro who has entered our store. One of the porters of the — Hotel was in here yesterday, and after he caught sight of that bicycle we simply could not interest him in anything else. The finish seemed to fascinate him. He not only placed his order, but promised to send around one of his friends who was on the point of purchasing."

Freight Cars as a Side Line!

Harry T. Dunn, of the Fisk Rubber Co., who recently returned from California, was detailing the prosperous state of affairs that exists in that section.

"Why," he said, "there are whole orchards of fruit going to waste simply because the railroads cannot furnish cars enough to enable its being shipped away."

"And yet cycle dealers say they can't find the right side line!" interjected one of his hearers.

Discussing Early Closing.

Almost before the season has fairly opened an early closing movement has been set afoot in Bridgeport, Conn. A paper has been circulated among the dealers there calling for 6 o'clock closing during the week except on Mondays and Saturdays, and it is said that the signatures of all but three of them were secured. A meeting will be held shortly to discuss the matter.

Peabody's Opening.

Fred. W. Peabody, 16 Main street, Amesbury, Mass., had an opening last week which was largely attended. An orchestra was in attendance. A fine exhibit of the 1901 patterns was made, aggregating nearly 50 machines.

Where Alabama Does not Mean Rest.

The Alabama Bicycle Co., 127 S. Twentieth street, Birmingham, Ala., say that the outlook for the season's business is remarkably good. In the repair shop it is all that five men can do to get the work out in any reasonable time.

PORTLAND'S PRICES

The Figures on Repair Work That Prevail
in the Pacific Northwest.

Having had a year's experience with its workings, the dealers and repairers of Portland, Ore., should know whether their attempt to stop price cutting by the adoption of a uniform price schedule has accomplished good. At a meeting held a short time ago the Cycle Board of Trade of that city decided to continue its organization and to put in force a revised schedule for use during 1901.

The schedule itself differs very slightly from those in force in the East. Prices are a trifle higher in many cases, but there is no such marked increase as one would naturally look for, having in mind the prevalent belief that the Coast figures are always considerably increased. The schedule follows:

AXLES.

Crank axles, made to order.....	\$2.00 and up
Front and rear axles, made to order .....	.75
Sundry axles put in.....	.50
Pedal pin, made to order.....	1.00 and up
Straightening front or rear axles .....	.35 and up
Straightening pedal pins.....	.35 and up
Straightening crank axle.....	.75 and up
Putting new key seat in shaft.....	.35

BOLTS AND NUTS.

Nuts, 1/2 or under, made to order.....	.15
Sundry nuts.....	.10
Nuts over 1/2, made to order.....	.25 and up
H. B. or S. P. bolt and nut.....	.25
Crank shaft locking screw.....	.50
Bench work, per hour.....	.50
Lathe work, per hour.....	.60

Deposit must be made on all model work.

CHAIN REPAIRS.

New bolt and nut.....	.15
New nut.....	.05
Link or part put in.....	.25
Each additional link put in....	.10
Links taken out.....	.20
Repair chain separate from wheel .....	.15

CRANKS.

Straightening cranks, each.....	.25
New cotter crank and pin put on	1.00 and up
New cotter pin and nut put in.....	.25
Welding tip on crank.....	1.25
Bushing crank tip.....	.50
Swaging and rethreading crank tip .....	.75
Brazing pedal pin in crank.....	.75

CONES AND CUPS.

New cone or cup 1/2 in. or under, made to order.....	.50
Each additional 1/4 inch.....	.25
Redressing old cones, each.....	.35
Redressing two cones on same axle .....	.50
Grinding cones, each.....	.25
Assembling .....	.25 extra

CLEANING AND REPAIRING.

Cleaning and adjusting coaster brake .....	.50
Cleaning all bearings, chain and outside	1.25 and up
Cleaning all bearings in chainless	1.50 and up
Cleaning and oiling chain.....	.25
Cleaning and oiling crank hanger .....	.35
Cleaning and oiling front or rear wheel .....	.25
Cleaning and oiling pedals, each.....	.25
Cleaning and oiling steering head .....	.25
Cleaning outside and oiling.....	.25

Oiling and adjusting.....	.25 and up
Oiling and adjusting chainless..	.50

BAKING ENAMEL.

Frame and fork, except light blue and white.....	\$3.50
Allowance for frame and forks knocked down.....	.50
Light blue or white.....	4.50
Extra for bi-colors.....	1.00
Forks only, black.....	.75
Forks only, colors.....	1.00
Forks only, light blue or white.....	2.00
Striping or decorating, extra....	.75
Tandems, extra, 50 per cent.....	
Enamelling rims, each.....	.50
Enamelling rims, each, over old enamel .....	.25
Striping rims, each.....	.25
Air dry frame and forks.....	1.75
Air dry frame and forks over old enamel.....	1.00
Air dry forks.....	.25

FRAME REPAIRS.

Replacing—		
Top or lower tube.....	\$3.50	\$5.00
Top and lower tube.....	5.50	7.00
Curved tube in drop frame....	4.00	5.50
Two curved tubes in drop frame	6.00	7.50
Seat post tube.....	3.50	5.00
Top, lower and seat post tubes	7.00	8.50
One rear fork or stay.....	2.50	4.00
Two rear forks or stays.....	3.50	5.00
Rear forks toe piece.....	1.50	3.50
Two rear forks toe pieces....	2.00	4.50
Upper or lower head lug.....	2.00	4.50
Upper and lower head lug....	3.50	5.00
Head	3.50	5.00
Rebrazing loose joints, each....	1.50	4.50
Rebrazing rear forks brace....	1.00	4.00
Splicing and brazing frame tubes	1.50	4.50
Straightening buckled frame....	1.00 and up	
Lining up frame.....	1.00 and up	
Lining up rear forks.....	.50	
Replacing C. H. bracket.....	4.00	6.00
Cutting down frame.....	5.00	7.50
Cutting down frame and dropping hanger.....	6.00	8.50
Repairing dents in frame.....	.50 and up	
Replacing seat post cluster, \$3, \$5.50 and up		

FRONT FORK REPAIRS.

One fork side put in.....	\$1.50	\$2.00
Two fork sides put in.....	2.00	3.00
Fork crown put in, \$2, \$2.50 and up.....		
Fork stem put in.....	2.00	2.50
One fork tip put in.....	1.00	1.25
Two fork tips put in.....	1.50	1.75
Straightening forks.....	.75 and up	
Splicing fork side.....	1.00	1.50
Splicing fork stem.....	1.50 and up	
Rebrazing fork stem.....	1.00	1.75

GUARDS.

New dress and chain guard complete	\$2.00 and up
New dress guard complete.....	1.50 and up
New dress guard without fittings	1.00 and up
New chain guard complete.....	1.50
New chain guard without fittings	1.00
Putting in new brace.....	.50
Replacing dress guard.....	.50
Replacing chain guard.....	.25
Netting or silk lacing extra.....	
Fitting mud guards, per pair....	1.50
Fitting mud guards on rear....	1.00
Fitting mud guards on front....	.75
Putting on scrapers, per pair....	.25

HANDLE BAR AND SEAT POST REPAIRS.

Brazing new stem on bar.....	.75
Brazing and reinforcing broken bar .....	.75
Reversing a stationary bar.....	.75
Cementing on grips, per pair....	.10
Putting on H. B. or S. P. expander .....	.50 and up

Splicing seat post.....	.50
Splicing seat post (expander)....	.75

RIMS.

Plain one-piece stock rim.....	\$2.00
Lam rim.....	2.25
G. & J. Dunlop and clincher rims	2.00
Special rims extra.....	
Steel rims, enamelled.....	2.25
Steel rims, copper plated.....	2.50
Respoking with rim, extra.....	.50
Respoking, special spokes, extra.....	
Respoking without rim.....	2.00
Putting on furnished rim.....	1.50
One new spoke put in.....	.25
Each additional new spoke in same wheel.....	.10
Truing wheels, each.....	.25 and up
Inserting new hub, list price, labor	1.75 and up
Putting on coaster-brake.....	\$2.50 above list
Putting on coaster-brake, steel rims, 50 extra	

SPROCKETS.

Truing front sprocket.....	.25
Grinding front sprocket.....	.50
Grinding rear sprocket.....	.35
New rear sprocket put on, made to order.....	1.25 and up
Brazing front sprocket on shaft.....	1.00 and up
Putting in new sprocket bolt and nut .....	.25

TIRE REPAIRS.

Cementing on tires, each.....	.25
Repairing puncture in single-tube tire .....	.25
Repairing each additional puncture in single-tube tire.....	.15
Injecting tire fluid in single-tube tire .....	.50
Repairing puncture in laced tire.....	.35
Repairing puncture in detachable tire .....	.25
Repairing puncture in detachable tire and reinforcing case.....	.40
Reinforcing outer case.....	.25
Vulcanizing patch on case and repairing puncture.....	.75
Vulcanizing single-tube tire.....	.75
Vulcanizing stem in single-tube tire	1.00
Vulcanizing tires containing tire fluid, extra.....	.25
Putting in metal base valve....	.50
Putting in valve and stem on double tubes.....	.50
Putting in valve stem.....	.40
Putting in valve only.....	.25
Putting in G. & J. valve reinforcement .....	.25
Splicing inner tubes without lacing or cementing on rim.....	.25
Splicing inner tubes, including lacing or cementing on rim....	.50
Repairing inner tubes without lacing or cementing on rim....	.15

Inserting inner tube in tire, list price for tube and 25 cents for work.

All tires put on at manufacturers' list.

Outer cases or tubes put on at manufacturers' list and 25 cents extra.

The following firms signed the schedule:

Ballou & Wright, E. S. Beisecker, Crawford, Marshall & Co., Denton & Co., C. A. Elliott, Andy Fritz, Fred T. Merrill Cycle Co., Henry Goodman & Co., Ira Hutchings, Honeyman, De Hart & Co., Hoosier Cycle Co., H. B. Hewitt, M. Hansen, F. P. Keenan, C. H. Jones, F. S. Kemp, "Billy" Lea, Mitchell, Lewis & Staver Co., J. A. McKee & Son, Northwest Gun and Bicycle Co., W. S. Overlin, George B. Prettyman, Jesse Robinson, Reckart & Russell, Snell-Yale Cycle Co., Sequest Bros., C. I. Scoffins, S. S. Sigel, the American Bicycle Co. and Fred Wyatt.

The Week's Patents.

670,310. Pneumatic Hub for Wheels. Theophilus Coad, London, England. Filed Aug. 11, 1900. Serial No. 26,642. (No model.)

Claim.—1. In a pneumatic hub for wheels, the combination with an axle, of a cylindrical drum formed integral with said axle, an annular plate surrounding said drum, but separated therefrom, an air cushion located between said drum and annular plate, and a flexible connection between the said drum and annular plate, substantially as described.

670,304. Weight Motor. Philip Babe, Brighton, Wis. Filed April 24, 1900. Serial No. 14,167. (No model.)

Claim.—1. In a motor, the combination with a frame and weight drums mounted therein, of cables wound upon the drums, weights supported by said cables, a crank wheel geared to the drums and designed to be driven by the motor, a reciprocatory element, as, for instance, a pump rod, a pitman connected to said element and to the crank wheel, an endwise-shiftable counterbalancing lever provided with a weight upon one end and connected at its opposite extremity to the pitman, and means located at the bottom of the frame for rewinding the cables upon the drums.

670,422. Bicycle Support. Robert P. Finley, Merchantville, N. J. Filed July 12, 1900. Serial No. 23,389. (No model.)

Claim.—1. In a bicycle support the combination of a projecting fixed shelf, a ledge located below the side edges of the said shelf, independent removable arms passing between the said ledge and shelf and being held thereby horizontally and divergently adjustable, substantially as described.

670,432. Speed Indicator. Robert N. Powers, Kansas, Ill. Filed July 20, 1899. Serial No. 724,466. (No model.)

Claim.—1. In a speed indicator the combination of a rotating disk, a worm arranged radially with relation to said disk and having operative relation thereto, a rotary nut arranged on said worm and also having operative relation to said disk, an index having operative connection with said nut, and means for governing the speed of rotation of said worm, substantially as set forth.

670,473. Bicycle Brake. Laverux N. Dyhrberg, Ashburton, New Zealand. Filed September 9, 1897. Serial No. 651,083. (No model.)

Claim.—In a brake for bicycles the combination with the pedal shaft of a clutch thereon operative only on back pedalling, a clutch on the rear wheel inoperative on back pedalling, a lug on each side of the rear fork, a brake member provided with an arm pivotally secured to each lug, the rear end of the member being provided with a pad to engage with the rim of the rear wheel, and the front ends of the two members being curved toward each other and rigidly secured together, and a brake rod pivotally secured between the perforated portions of the arms at one end and connected with the clutch on the crank shaft at the other.

670,508.—Luggage Carrier for Bicycles. Frank H. Cowles, Mount Morris, Mich. Filed August 27, 1900. Serial No. 28,176. (No model.)

Claim.—1. The combination with a frame of hooks at one end thereof, a yoke secured within the opposite end of the frame and having apertures in the free ends thereof, and sliding bolts mounted upon the yoke adjacent to each aperture, whereby the same may be secured to the axle of a wheel of a velocipede.

670,519.—Velocipede Crank Axle. James P. Scovill, Chicago, Ill., assignor to the George L. Thompson Manufacturing Company, same place. Filed July 18, 1898. Serial No. 686,207. (No model.)

Claim.—1. The combination to form a locking device of a relatively fixed member provided with a threaded portion, an adjusting member having screw-threaded engagements with said fixed member so as to be capable of endwise adjustment thereon, a locking member having a threaded engagement with the adjusting member, a longitudinally movable part adapted to serve as a stop to limit the travel of the locking member, and means for holding the adjusting member in its various endwise adjustments with relation to the longitudinally movable part, whereby the locking member may be brought into locked position at various points in its rotation around the adjusting member, for the purpose set forth.

670,575. Coaster and Brake. John G. Ziegler, Reading, Penn. Filed January 11, 1900. Serial No. 1,063. (No model.)

Claim.—1. In a coaster brake mechanism the combination with a rotary hub of a clutch ring fixed thereto and provided with wedge-shaped peripheral recesses, an operating wheel inclosing said clutch ring, a follower ring loosely mounted on said hub between a collar thereon and said clutch ring, and having follower lugs extending therefrom into said roller recesses, clutch rollers in front of said lugs and a spring to the rear of the same substantially as set forth.

670,590. Motorcycle. George M. Holley, Bradford, Penn. Filed October 19, 1900. Serial No. 33,571. (No model.)

Claim.—1. In a motorcycle the combination with the crank box and the cylinder of an engine of a cycle frame having a member which is bifurcated at its lower end, the branches of said bifurcated member being arranged on opposite sides of said cylinder and connected at their lower ends with the crank box, substantially as set forth.

670,608. Bicycle. Thomas L. Dennis, Brooklyn, N. Y. Filed July 1, 1898. Serial No. 684,960. (No model.)

Claim.—1. The combination with the frame of a bicycle, the rear wheel of such vehicle and the clutches arranged in connection with the latter of pedals jointed at one of their ends in such frame and extended forward toward the front of the machine, flexible connections fixedly attached at one of their ends to the free ends of their respective pedals and at the other ends connected with their appropriate clutches, and pulleys over which the flexible connections are passed on their way from the pedals to the clutches supported upon the frame above the pedals, whereby such pedals when depressed are caused to act as toggle arms and transmit a gradually increasing power to the clutches, substantially as described.

670,617. Velocipede. Emmit G. Latta, Friendship, N. Y. Filed December 16, 1899. Serial No. 740,499. (No model.)

Claim.—1. The combination with a velocipede frame having an open sided rectangular yoke or bracket, of a rectangular crank shaft hanger seated in said bracket and constructed to enter the open side thereof laterally, and means for securing the hanger in the bracket, substantially as set forth.

670,715. Bicycle Driving Mechanism. John B. Mahana and Adrian A. Pompe, Toledo, Wash. Filed October 9, 1900. Serial No. 32,543. (No model.)

Claim.—1. In a vehicle of the class described the combination with the frame of a

steering wheel and a driving wheel, a gear wheel on each end of the hub of the driving wheel, a shaft on each side of the driving wheel passing longitudinally through a portion of the frame, and having a pinion on its rear end to engage with the gear on the corresponding side, a clutch on the forward end of each of the side shafts, sprocket wheels adapted to rotate the shafts and a foot-operated chain to give motion to the sprocket wheels, substantially as set forth.

670,725. Valve for Inflating Bodies. Edward F. Pickett, Buffalo, N. Y., assignor of two-thirds to W. H. Gratwick and Pendennis White, same place. Filed December 13, 1900. Serial No. 39,677. (No model.)

Claim.—1. A valve for tires and the like comprising an outer head, a body portion, a neck adapted to draw the said head and body portion against opposite sides of said tire wall, a central bore with a contracted opening in the apex of said body, said apex adapted to be pressed together, substantially as described.

670,811. Portable Air Pump. James C. Phelps, Springfield, Mass. Filed September 30, 1899. Serial No. 732,155. (No model.)

Claim.—An air pump comprising a tubular case, having an air outlet at one end and a thimble bushing (7) screwed into the opposite end, a hollow piston (4) operating directly within this case and extending through the bushing, its diameter being slightly less than the latter, so that air may be drawn into the case between the piston and bushing, a thimble bushing screwed to one end of the piston, said bushing having an air inlet opening, a hollow screw in the opposite end of this piston, a packing and backing plate held on the end of the piston by said hollow screw, an inner hollow piston, a backing plate and packing on one of its ends, a screw plug for holding the packing on the piston, the inner ends of the thimble bushings adapted to strike the backing plates to act as stops to limit the outward movement of the parts, said screw plug having spring clamps thereon, and an auxiliary connecting tube adapted to enter the inner hollow piston and be held by the spring clamps.

670,866. Pneumatic Tire. Pardon W. Tillinghast, Edgewood, R. I. Filed April 24, 1897. Serial No. 633,798. (No model.)

Claim.—1. In combination a wheel rim with a single groove, a hoop of less width than the groove of the rim, having a fixed diameter greater than the rim at the bottom of the groove, and a tire sheath having beaded edges; the edges of the hoop serving as pivots around which the beaded edges of the sheath turn in and out of the groove of the rim.

DESIGN PATENTS.

34,252. Motor-Bicycle Frame. Joseph W. Parkin, Philadelphia, Pa. Filed Feb. 5, 1901. Serial No. 46,147. Term of patent, 7 years.

34,254. Bicycle Frame. Charles Thomas Brock Sangster, Birmingham, England. Filed Feb. 21, 1901. Serial No. 48,378. Term of patent, 3½ years.

34,255. Bicycle Frame. Charles Thomas Brock Sangster, Birmingham, England. Filed Feb. 21, 1901. Serial No. 48,379. Term of patent, 3½ years.

34,256. Bicycle Frame. Charles Thomas Brock Sangster, Birmingham, England. Filed Feb. 21, 1901. Serial No. 48,376. Term of patent, 3½ years.

34,257. Bicycle Frame. Charles Thomas Brock Sangster, Bournbrook, England. Filed Dec. 8, 1900. Serial No. 39,238. Term of patent, 3½ years.

Our Distributing Agent
nearest you is only a
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2 Times the Time Other Juveniles Will Run

That is the one surpassing advantage that dealers who sell the Elfin have over all others. They can truthfully state that the usefulness of a Juvenile depends upon how long it will fit the child—that the Elfin has about twice the life of any other Juvenile.

The Reversible Crank Bracket does this.

Nor is this all. Elfins are admirably equipped. They have Fairbanks Rims, Hartford Tires, Fauber Hangers and indestructible grips.

The time is short. The season is at hand. Send for catalog and make overtures for agency.

**Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.**

Activity in Exports Continue.

Another good week is to be recorded for the exports of cycles, quite up to the mark set by those immediately preceding. Great Britain is again the largest buyer, with the Low Countries, France and Germany coming next. Single shipments of more than \$10,000 worth each were made to Rotterdam and Havre. The complete record follows:

Antwerp—14 cases bicycle material, \$360.

Abo—7 cases bicycles and parts, \$417.

Azores—2 cases bicycle material, \$80.

British possessions in Africa—37 cases bicycles and material, \$506.

British East Indies—57 cases bicycles and material, \$1,165.

British West Indies—11 cases bicycles and material, \$335.

British Guiana—17 cases bicycles and material, \$422.

British Australia—19 cases bicycle material, \$1,181.

Christiania—27 cases bicycles, \$888.

Chili—3 cases bicycles and material, \$150.

Copenhagen—251 cases bicycles, \$3,225; 34 cases bicycle material, \$1,661.

Cuba—3 cases bicycles and material, \$78.

Dutch West Indies—1 case bicycle material, \$17.

Ecuador—1 case bicycles, \$17.

Florence—60 cases bicycles, \$1,637.

Genoa—2 cases bicycles, \$75; 12 cases bicycle material, \$396.

Helsingfors—40 cases bicycles, \$1,767.

Hango—4 cases bicycles, \$85.

Hamburg—180 cases bicycles, \$4,566; 69 cases bicycle material, \$2,209.

Holmstad—1 case bicycles, \$20.

Havre—376 cases bicycles, \$10,378.

Liverpool—5 cases bicycles, \$150; 7 cases bicycle material, \$750.

Liberia—1 case bicycles, \$75.

London—205 cases bicycles, \$2,371; 130 cases bicycle material, \$5,635.

Lisbon—3 cases bicycle material, \$104.

Mexico—4 cases bicycles and material, \$120.

New Zealand—51 cases bicycles and material, \$1,895.

Peru—2 cases bicycle material, \$56.

Rotterdam—439 cases bicycles, \$10,272; 15 cases bicycle material, \$784.

Southampton—64 cases bicycles, \$6,870; 5 cases bicycle material, \$1,020.

United States of Colombia—1 case bicycles, \$29.

Taking Big Chances.

There must be fierce competition between the mail-order houses, judging by the advertisement of one of them located in Chicago. Even then unusual confidence must be felt in a \$11.75 bicycle which this concern offers to send free on ten days' trial. There would not be much left of the ordinary \$11.75 machine after a ten days' trial; certainly not sufficient to warrant the prospective customer in paying more than enough to get it off his hands.

IT LEVELS THE HILLS



Mr. Frank I. Clark of Baltimore, has the honor of making the first motor bicycle century within eight hours, the time limit, which included time for lubricating, replenishing gasoline, and repairing a punctured tire. The last two miles being made in five minutes.

The actual running time for the 100 miles was six hours, against a strong head wind, under unfavorable conditions, over the rough and steep hills of Maryland, without a mishap to the motor.

The enthusiasm of the officials of the Century Bicycle Club, who accompanied him, was unbounded.

NOW

don't you see how the interest in the century runs will be revived with the hills all leveled and the push removed? And how it is for the interest of every dealer to demonstrate the speed and endurance of this latest mechanical achievement in bicycle construction? Unless you are living in the past, order the Orient Motor Bicycle to-day.

WALTHAM MFG. CO.,

WALTHAM, MASS.

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

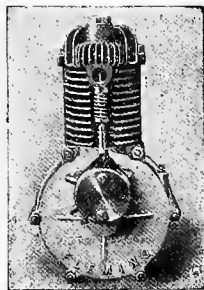
If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

Why, yes! we will be pleased to show you the reasons for THE MAGIC gaining such an enviable reputation as a good Samaritan for punctured



tires. It means dollars and cents for you to know. All you have to do is write The Magic Repair Tube Co., 250 Larrabee St., Chicago, Ill.

DON'T EXPERIMENT!



Use the
well-known

"Fleming" Motor

on your Motorcycle.

Fleming Motor Vehicle Co.,

93-97 Elizabeth St., New York, U. S. A.

IDEAL ADJUSTABLE BARS
AND SADDLE POST.

Made of the best material, and finished and plated in the best possible manner.
Get our prices for 1901.

IDEAL PLATING CO., 3 Appleton St., Boston, Mass.

L. R. HALL

Enameling and Nickeling Co.

ENAMELING, NICKEL-PLATING

and VULCANIZING for the trade.

Carriage Tires
Our Specialty.

4 PORTLAND STREET
BOSTON.

Bicycle and Automobile Directory Ready.

This Directory has just come from the press and will certainly be in big demand. The work is very complete and covers the bicycle and automobile field thoroughly. The list of bicycle dealers and repairers is the most comprehensive that has yet been published. Bicycle manufacturers and makers of parts, fittings, supplies, sundries, etc., corrected up to time of going to press. Considerable space has been devoted to automobile manufacturers and contingent interests, and from the careful manner in which the book has been prepared subscribers are assured of a valuable aid in the transaction of their business. A list of the auto. clubs, owners and riders of the United States is also given.

You should send at once for a copy if you have not already done so. It will prove the best mailing list you have ever used. Price, cloth bound, \$5 in U. S. and Canada; foreign countries, \$6. Paul Mensch & Co., publishers, 92-94 La Salle St., Chicago, Ill. ***

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MORSE TWIN CHAIN
ROLLER

NOISELESS IN MUD, WATER OR
DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless
Rocker Joints. Insist on having the
Morse Twin Roller. Fits regular
sprockets.

Send for Catalogue and
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HAND AND FOOT PUMPS,

Oilers, Repair Tools,
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Spelter Solder

Sheet Brass,
Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn.
Depots: 210 Lake St., Chicago.
423 Broome St., New York.

WANTS AND FOR SALE.

15 cents per line of seven words, cash with order.

WANTED. Second-hand Crawford wheels and Combination Tandem, in good condition.
CYCLE EMPORIUM, LEXINGTON, O. T.

FOR SALE.—Morgan & Wright vulcanizer (gasolene) and supplies, used a few times. Price \$5. A. T. Larrabee, Peabody, Mass.

Low Rates to the South.

Excursion tickets at reduced rates are now being sold by the Chicago, Milwaukee & St. Paul Railway to the prominent resorts in the South, including Jacksonville, Fla., Mobile, Ala., New Orleans, La., Savannah, Ga., El Paso, Tex., which are good for return passage at any time prior to June 1st, 1901. Information regarding rates, routes, time, etc., can be obtained on application to any coupon ticket agent of the Chicago, Milwaukee & St. Paul Railway. ***

NEW SYSTEM

of Gasolene Engine Ignition, "Autogas" Dry Battery, double porcelain insulated Ignition Plug, Secondary Coil, etc.

WILL SEND

1 DOZ. of my Automobile Dry Battery anywhere, f. o. b. New York, **FOR \$3.**

Write to-day for circulars, and mention
Bicycling World.

WILLIAM ROCHE,

Inventor and Sole Manufacturer of New Standard Specialties,
42 VESEY STREET, NEW YORK CITY.

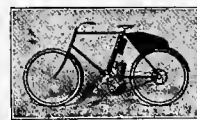
SOLAR LAMPS

The Kind That Satisfy.

MADE BY

THE BADGER BRASS MFG. CO., Kenosha, Wisconsin.

PATEE MOTOR CYCLES, \$200.



count. **WRITE US.**

PATEE BICYCLE CO., Indianapolis, Ind., U. S. A.

20th Century OIL and GAS
Bicycle, Driving and Automobile

HEAD-LIGHTS.

For sale by all jobbers and dealers.
20th Century brand of Carbide.

Sanguine at Worcester.

Worcester (Mass.) dealers are inclined to be a very optimistic lot, and to view matters altogether too much through rose-colored glasses. Consequently it is the part of wisdom to discount, in some degree at least, the predictions which they make each spring relative to the flattering outlook for business. This year, however, they speak more positively than ever, and support their assertions by pointing to a largely increased volume of sales already made.

This is to be a banner season for cycling in Worcester, says the Gazette, of that city. Dealers and riders predict a season of unparalleled riding, both for pleasure and in the racing line. Never before in the history of the wheel in Worcester has there been such a large demand for machines as there has this year. More wheels have been sold and ordered so far this year than in any previous year during the same time.

Talking with a cycle dealer recently the Gazette man learned that the dealers all over the city were unable to keep pace with the orders left for wheels by people in almost every walk of the city's life. The number of riders who will wheel for the pleasure to be derived from it and the healthful exercise of the machine shows so far an unprecedented increase.

The E. R. Thomas Motor Co. write that their adjustable motor bed plate will fit practically all chainless bicycles.

ECLIPSE BICYCLES

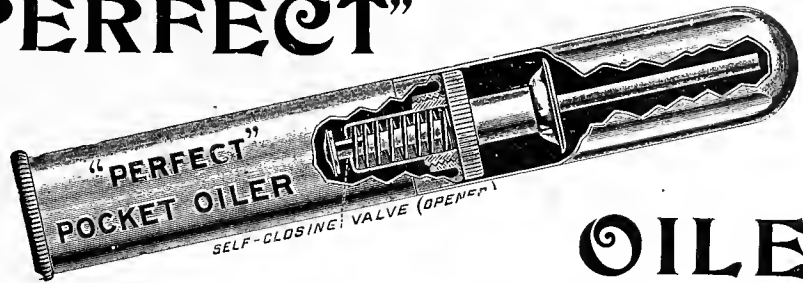
Better than ever.

Good Agents Always Wanted.

SEYMOUR MFG. CO.,

99 CHAMBERS ST., NEW YORK.

"PERFECT"



25c.

OILER.

Used by leading makers of high-grade bicycles. The only oiler that regulates supply of oil. CANNOT LEAK. We make cheaper oilers also, of unequalled quality.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.

DECALCOMANIA
NAME PLATES
TRANSFER DECORATIONS

QUICK DELIVERY
SKETCHES AND SAMPLES SUBMITTED FREE
SEND FOR CATALOG

THE MEYERCORD CO.
CHAMBER OF COMMERCE BUILDING
CHICAGO

THERE'S REAL COMFORT
IN THE REEVES
Ideal Spring Seat Post.
It relieves all jolts and jars, and converts any Bicycle, new or old, into a Cushion Frame. Fits any wheel. Sent prepaid to any address on receipt of \$1.75. Money back after three days' trial if you want it. Send size of present post. D. E. ORVIS & CO., 71 E. Genesee St. Buffalo, N.Y.
Reference, Buffalo Commercial Bank.

Dealers send for Circular and Wholesale Price List.

THE LEADING HOUSE
FOR
TIRES, SUNDRIES & TOOLS
GOODS UP TO DATE PRICES TO PLEASE
BROADWAY BICYCLE & SUNDRY MFG CO.
7 & 9 WARREN ST. NEW YORK.
SEND FOR OUR CATALOGUE AND MONTHLY BARGAIN SHEET

INDIANA CHAIN. EASIEST RUNNING. CONSEQUENTLY BEST.



Send 26 cents for Fob. \$1.80 per dozen, on card.

INDIANA CHAIN CO., INDIANAPOLIS, IND.

NEW DEPARTURE SUNDRIES

SELLING AGENTS—
JOHN H. GRAHAM & CO.
113 CHAMBERS STREET,
NEW YORK CITY

SECURITY CYCLOMETER BELL MASTER BRAKE TWIN HEAD GAS LAMP

SOLE MANUFACTURERS
THE NEW DEPARTURE BELL CO.
BRISTOL CONN. U.S.A.

"SEARCH-LIGHT"

BURNS GAS



LANTERNS

FOR

Cycle,
Carriage and
Automobile.

Furnished with Rigid,
"Wishbone" or Carriage Bracket.

Bridgeport Brass Co.
19 Murray St., New York.

BURNS OIL



NEVER LEAK

STOPS LARGE PUNCTURES.

This is the only fluid that can be legally used in pneumatic tires. Suits now pending.

BUFFALO SPECIALTY MFG. CO.,
Buffalo, N. Y.

FAST TRAINS

Chicago & North-Western Ry.

The Overland Limited

California in 3 days

The Colorado Special

One night to Denver

The Chicago-Portland Special

Oregon and Washington in 3 days

The North-Western Limited

*Electric Lighted—Chicago,
St. Paul and Minneapolis*

Duluth and St. Paul Fast Mail

Fast train to head of lakes

The Peninsula Express

*Fast time to Marquette
and Copper Country*

NO change of cars. The best of everything. Call on any agent for tickets or address

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The Best Advertising for the
Irish Trade is

THE IRISH CYCLIST

Specimen copy and advertising rates on
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R. J. MECREDY & SON, Ltd., Proprietors,
49 Middle Abbey St., DUBLIN.

All American wheelmen who desire to keep themselves posted upon matters concerning the cycle in Europe, its trade, mechanics, and sport, should subscribe to

THE CYCLIST

AND BICYCLING AND TRICYCLING TRADES REVIEW.

The only recognized authority of English trade and manufacture. Sent post free to any part of America for one year, \$3.25. American manufacturers having novelties in machines or sundries to introduce should advertise in

THE CYCLIST.

Terms on application to

LILFEE SONS & STURMEY, Ltd.,
19 Hertford Street, Coventry, England.

Members of the American Trade visiting England are invited to call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street, Ludgate Circus, London, E. C.

ANY DEALER

CAN
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A

C. C.

ON
YOUR
HUB.

It is not necessary to buy a new hub in order to get the best Coaster on the market. The C. C. Brake has been thoroughly tested and is fully guaranteed. Booklet free. Address CANFIELD BRAKE CO., CORNING, N. Y.



Through Train and Car Service in
effect April 29, 1900.

TWO FAST TRAINS

	"Chicago" Special Via Lake Shore.	"North Shore" Special Via Mich. Cen.
Lv. Boston	10.45 A.M.	2.00 P.M.
Due Albany	4.10 P.M.	7.35 "
" Syracuse	7.55 "	11.40 "
" Rochester	9.40 "	1.30 "
" Buffalo	11.40 "	
" Toledo	5.55 A.M.	
" Detroit		8.15 "
" Chicago	11.50 "	4.00 P.M.

The Finest Pullman Cars will be run on these trains. Tickets and accommodations in sleeping cars for sale at City Office, 366 Washington Street and at South Station.

A. S. HANSON, General Passenger Agent.

GOOD WORK GUARANTEED.

D. PATTINSON,
rear 48 Stanhope St., Boston.
(Opposite former location.)

EXPERT REPAIR WORK
OF ALL KINDS ON
BICYCLES AND AUTOMOBILES.
(Official L. A. W. Repair Shop.)

PATENTS GUARANTEED



Our fee returned if we fail. Particulars and our book "How to Secure a Patent" sent free. Patents secured through us are advertised for sale at our expense. Send sketch and description of your invention and we will tell you free whether or not it is patentable.

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Many have made fortunes from simple inventions

The Thorndike

Boylston St. and Park Square,

On the border of the most famous BOSTON.
Public Garden in America.

G. A. DAMON. J. L. DAMON. J. L. DAMON, Jr.



Via Rockford, Freeport, Dubuque, Independence, Waterloo, Webster City, Fort Dodge, Rockwell City, Denison and Council Bluffs.

DOUBLE DAILY SERVICE TO OMAHA

Buffet-library-smoking cars, sleeping cars, free reclining chair cars, dining cars. Tickets of agents of I. C. R. R. and connecting lines. A. H. HANSON, G. P. A., Chicago.

BOSTON & MAINE R.R.

LOWEST RATES
FAST TRAIN SERVICE

BETWEEN

Boston and Chicago,

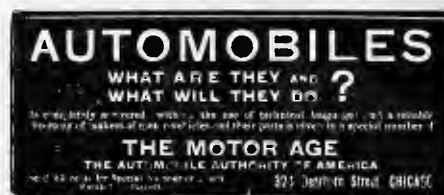
St. Louis, St. Paul,
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and all points West, Northwest, Southwest.

Pullman Parlor or Sleeping Cars on all Through trains.

For tickets and information apply at any principal ticket office of the company.

D. J. FLANDERS, Gen'l Pass. & Ticket Agt.
BOSTON.



The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., April 11, 1901.

No. 2

SYRACUSE'S SENSATION

More Rumor Than Ruction in it—Just What has Happened.

Something of a flurry has swept the trade during the past week over what has been supposed was an effort on the part of the American Bicycle Co. to throttle the Bretz Cycle Mfg. Co. and the Stearns Bicycle Agency, of Syracuse, N. Y., and thereby force the Wolff-American, the Regal and the Holland bicycles off the market.

The Syracuse papers have teemed with sensationally headed stories which H. E. Maslin, of the Stearns Agency, has himself branded as mere rumors, which he declines to discuss. It is believed that most of the material has been given to the reporters by a firm of lawyers who have forwarded the clippings to the Bicycling World and who appear to be seeking advertisement at any cost.

The Bretz people were asked for a statement, but none has been forthcoming. Col. George Pope, first vice-president of the American Bicycle Co., states, however, that nine-tenths of what has appeared in print is merely irresponsible talk. According to Col. Pope the only foundation for the furore is the presentation of papers by the A. B. C. to E. C. Stearns, H. E. Maslin and Mrs. Avis Van Wagenen, binding them and each of them to refrain from the direct or indirect manufacture and sale of bicycles for a term of fifteen years. This is the contract which all parties to the organization of the A. B. C. agreed to sign when they gave options on their properties. This agreement required that the contract be signed "whenever called on." The fact that E. C. Stearns & Co. were a partnership and not a corporation appears to have had something to do with the case, but whatever the cause, Messrs. Maslin and Stearns and Mrs. Van Wagenen have but just been called on to sign the necessary documents.

Col. Pope states that absolutely no other action has been taken or demand made. He says that no notice, request or demand has been served on either the Bretz Cycle Mfg. Co. or the Stearns Bicycle Co. to discontinue the manufacture and sale of any particular

bicycle or bicycles. The fact that the Regal is enameled yellow like the Stearns and the Holland white, like the Barnes has not been touched on and does not enter into the matter.

Col. Pope states further that Mr. Stearns is still a director of the American Bicycle Co., despite reports to the contrary. He acknowledges that Mr. Stearns has not yet executed the necessary papers, but states that he advises them that he is awaiting the advice of his counsel, who is absent.

"Luggage Carrier" Lamson Embarrassed.

Charles H. Lamson, of Portland, Me., the well-known luggage carrier manufacturer, and the jeweller who designed the L. A. W. badge, is in financial straits. He has offered a settlement of 40 per cent, which has been generally accepted. His statement shows assets of \$472.54 and liabilities of \$1,150.26. It is expected, however, that the business will be reorganized and continued on a firmer basis.

Drop in Tire Fluid Prices.

A slashing reduction in the price of Cole's Stop-Leak tire fluid is announced by its maker, the George W. Cole Co., of this city. The new figure is \$1.30 per dozen tubes, express prepaid to any part of the United States. As these are the regular 25 cent tubes with screw tops, the extent of the reduction is easily appreciated.

England's Exports Still Dwindling.

England's cycle exports for February are declared by one of the papers to be "more than disappointing." They totaled £38,483 as against £42,120 in February, 1900. For the corresponding months the United States's exports were valued at \$240,840 and \$342,840, respectively.

Shelby Securities Show Strength.

The Shelby Steel Tube Co.'s securities have developed remarkable strength within the last month. The preferred stock has advanced from 40 to 58 and the common from 5 to 14.

Keating's Incorporation.

Portland, Me.—The R. M. Keating Motor Co., with \$500,000 capital, to manufacture and deal in motor vehicles.

DICTATING DEALERS

They now Tell the Tire Makers how to do Business and Jail an Auctioneer.

Apparently, that aggressive and super-active organization, the German Cycle Dealers Association, has at last temporarily wearied of strangling the American "monster" and dictating to the German cycle manufacturers how shows should be conducted and their business carried on.

For the moment the Dealers have turned their attention to the tire trade, an extraordinary meeting being held in Berlin to consider the matters of repairs and guarantees in particular.

At this meeting a scheme which had been previously outlined was taken up and discussed. Under this proposed arrangement all direct relations between the tire manufacturers and the riding public will cease. All matters relating to the purchase and repair of tires will be turned over to the dealers, the manufacturers being forbidden to have any direct dealings with the riders.

Naturally, such a radical step as this would be has met with considerable opposition in some quarters, but it appears to have been overcome, for the tire manufacturers are reported to be unanimously in favor of such an arrangement. Consequently, a commission will be appointed to settle the details and to draw up an agreement which will be binding upon and satisfactory to both parties.

It is probable that this commission will also be called upon to go into the question of tire guarantees, in order to reach a basis of agreement concerning them.

Having temporarily disposed of tires, the German Dealers returned to their old task, that of giving the tail of the American "monster" a twist. Hamburg offered the opportunity. An auctioneer there commissioned to sell a number of cheap American bicycles advertised them in the glowing language of his ilk, and on the block repeated his fervid praise.

The Cycle Dealers Association interested themselves in the matter and brought action against the auctioneer charging him with wilfully intending to deceive; they alleged that his assertions with regard to quality could not be substantiated, and were obviously false. When the case came before the courts, a buyer of one machine claimed compensation, and the auctioneer was condemned on both counts to a severe penalty, the judge characterizing the case as scandalous.

MAJOR TAYLOR'S TRIP

It may Oblige or Induce French Makers to Renew Support of Racing.

Paris, March 22.—When the motor bicycle was first brought out it was supposed that it would be chiefly useful as an instrument for pacing on cycle tracks, and this was the direction in which most of the inventors were working. They did not expect that they would be able to make fortunes out of pacing motor bicycles, but still there was a limited demand for them, and a few professional cyclists of a mechanical turn of mind set to work to devise suitable machines.

Owners of bicycle tracks offered inducements that at least made it worth the while of the inventor to turn out a machine that would just then fill a very pressing want. Pingault introduced an electric bicycle that for a time had a certain vogue, and undoubtedly showed the superiority of mechanical over human pacing, since it kept up one uniform speed and gradually wore down all the other pacing instruments. Then Rivierre, the long distance champion, started his career as a motorcycle manufacturer by building a gasoline bicycle for his own use on the track. While superior to the pedal machines, the motorcycles in their somewhat crude form did not altogether come up to expectations, and some ingenious makers took advantage of this new system of pacing by fitting the machines with enormous gasoline tanks to serve as shields for riders behind. The practice was carried to such an extent that track managers had to fix a limit to the width of the machines.

Mechanical pacing dropped out with the slump that came over professional racing two or three years ago. Cycle makers would not spend any more money on racing, and the professionals, who had only the prizes to look to, were obliged to provide their own pacing instruments, with the result that the pacing expenses were actually more than they would get in the event of winning. This caused a lot of trouble among professionals who wanted the track proprietors to provide motorcycles for pacing, but the owners did not see the fun of throwing away any more money when they were running the tracks at a loss.

The question of mechanical pacing is coming up once more now that there seems a chance of professional cycling booming again this year. There are several changes in the cycle industry which seem to show that makers are going to spend more money on advertising. The Clement and Gladiator businesses are being converted into a new company, and other firms who see that a decline of racing has been accompanied by a decline of trade seem disposed to engage professionals to ride their machines. Again, the

presence of Major Taylor in Paris shows that American cycle manufacturers mean to get a big share of the trade over here, and their competition will certainly do something to wake the French firms out of their long sleep.

Major Taylor is being made a lot of. His portrait and biography are appearing in the papers, and every one knows what he eats and drinks and where he goes to have his shoes blacked. Of course, all this is being worked up so as to create a sensation among the public and make them flock once more to the tracks, and if Major Taylor doesn't live up to his reputation as a second Zimmerman he will go away with much less clatter and advertisement than have heralded his coming over here. Major Taylor is a modest fellow, and he will need all his modesty to stand the flattery of those who are making use of him to create another boom in cycle racing.

This digression brings me back to mechanical pacing, as sports promoters will be obliged to tackle this question if professional racing is to boom. Unless makers enter the lists again and provide motorcycles the track owners will be compelled to supply pacing instruments, because the riders won't do so. They prefer to give up racing altogether to seeing their winnings swallowed up by expenses. Motor tricycles are usually barred on the track as being too dangerous when there is a crowd racing, and they give an unfair advantage to the man who is immediately behind. Bicycles propelled by gasoline motors have not proved successful because they are not usually fast enough, and nowadays professionals hunger for machines that travel at increasingly high speeds. An experiment is about to be carried out in Germany of fixing up a trolley wire around the track and running electric bicycles by overhead contact. This would be an ideal system if it were safe. The difficulty would be in bicycles passing each other without being mixed up with the wires. Track owners in Paris are watching the experiment with a good deal of interest, and if it should work out all right in practice we shall see something of the kind adopted here.

Echo of Weaver Failure.

Argument was begun last week at Albany, N. Y., before the Court of Appeals, in the suit brought by John W. Queen and Thomas V. Donnelly, as receivers of the Weaver Cycle Material Co., plaintiffs and respondents, against Joseph A. Weaver, defendant-appellant.

The plaintiffs in their complaint allege that the defendant, Weaver, who was a stockholder in the defunct Weaver Cycle Material Co., knowing that the company was about to become insolvent, took a bill of sale, and an assignment of the book accounts, and also possession of all the merchandise, for the purpose of giving the defendant preference over other creditors. The Appellate Division of the Supreme Court reversed a judgment in favor of the defendant and granted a new trial to the plaintiff.

SOME ENGLISH VIEWS

Matters Affecting the Price of Motorcycles—Trailer Causes Another Accident.

London, March 27.—With the reduction in the prices of motorcycles—that is to say, reductions in the prices of non-standard machines—there is evidence that a number of the actual motors employed are of inferior design—I do not say make—and that, as a consequence, trouble will be likely to ensue.

The greatest trouble appears to lie in the fact that the cranks and pins are turned with square shoulders, so that they frequently break off at once. This means a great deal of annoyance and also expense, as the broken parts are apt to cause a great amount of damage to the cylinder. Yet the error in design is one which could be easily rectified if only the makers would listen to reason, and when they find a part constantly breaking tumble to the fact that the design must be at fault. A great deal of this spirit is owing to the circumstance that some of the firms have been satisfied with their first motors without putting the engines to sufficiently long or severe tests, and have made a very considerable number of parts, the "scrapping" of which would mean a dead loss. Yet in the end it would be better to face this than run the risk of losing trade by disgusting the public, and also having to renew broken parts, for which there is a considerable difficulty in obtaining the money.

On the other hand, some firms here get hold of genuine De Dion motors at very low figures, and, moreover, seem to be able to get more when the consignment quoted for is sold out. Yet the standard motor companies, by which I mean the larger firms, do not attempt to compete, notwithstanding that the public are finding out rapidly that motor prices vary considerably, and that it is often worth while to go a little further down the street and save a big sum. For instance, valves are frequently quoted at \$2 by the motor companies, yet Messrs. Gamage, Limited, can retail them at half that amount, and even a bit less. A good deal of this is no doubt due to the fact that many of the motor companies are hardly under the management of really business men, and are much the same as the cycle companies were during the cycle "boom." This state of things will, however, soon be altered, as the public demand increases, and business firms find it worth while to cater for motorists in much the same way that they did for cyclists.

The discussion as to what is the difference between a motor car and a motorcycle is still going on, although it seems extraordinary how there can be any question about the matter after the decision in the law courts that there is such a thing as a motorcycle, because that admission clearly proves

that such a machine is distinct from a car. Furthermore, as the evidence of witnesses was quoted at some length by the judge, it follows that he was fairly satisfied on the point. Yet some people seem to labor under the delusion that because the motor of a car is started by the physical power of the driver by means of a crank handle or similar arrangement, it is a kind of motorcycle. Could anything be more ridiculous?

Another accident, owing to a trailer swinging round when descending a hill, has been recorded, and it seems quite clear that in order to render this class of conveyance really safe when used in hilly districts, it is necessary that the brakes should be arranged to act upon its wheels before they check the tricycle in front. I fully expect that one of these days a fatal accident will ensue from this defect in trailers as at present made, and then perhaps the unmechanical arrangement of the braking power now adopted will be altered. We are so fond of locking the stable door after the horse has been stolen!

The tires of the steering wheels of most of the motor quads continue to give a great deal of trouble and to wear very badly. This no doubt arises from the steering strain, but not entirely. The front wheels are usually mounted on a comparatively light axle, and they are not set in at the bottom to allow for spreading when the weight is upon them. Consequently they are often seen leaning toward each other very considerably, and this must cause a good deal of uneven wear upon the tires, especially if these be not pumped very hard. There must be some cause for the failure of the front wheel tires, quite apart from the actual steering, the strain of which cannot be sufficient to occasion all the damage which is complained of by many users of this type of motorcycle.

Hooley a Princely Bankrupt.

"Plunger" Hooley's downfall has evidently not borne heavily on the gentleman. The British papers term him "a princely bankrupt," a designation that seems to fit him admirably.

According to a member of the Bankruptcy Committee, Hooley not only has a suite of rooms at Walsingham House, but has two country seats, Papworth Hall and Risley Hall. He pays in wages to his servants, male and female, and his gardeners, grooms and the rest, more than £6,000 yearly. His weekly wages bill, apart from those he pays monthly or quarterly, is between £120 and £130. He keeps many horses and every sort of vehicle, from a dog cart to a shooting coach; he has about a score of gardeners at Papworth alone; he is constantly adding to his estate there by buying up adjoining farms, and he recently bought £2,000 worth of additional agricultural machinery for his operations there. His wine cellars contain one of the most extraordinary collections ever got together, and it is estimated that the princely bankrupt is not living at the rate of less than £15,000 yearly. Hooley obtains his income by the financial operations he conducts from Walsingham House, where he sees clients daily. But he doesn't deal on his own behalf. He is the agent of his wife.

DEFENDING THE DIAMOND

Arguments Brought to Prove its Superiority Over all Other Frames.

They were talking about cycle construction, and had dwelt particularly on the immutability of the bicycle frame. Nearly all were emphatic in their belief that the diamond was far and away the best frame that could be designed, whether viewed from the standpoint of strength, durability and rigidity or that of looks alone.

"There is little or no danger of the frame of the man-driven bicycle ever being radically changed," said the retailer, whose experience dated back considerably more than a decade. "So well is this understood in the trade that no maker would have the hardihood to discard it in favor of something new. He knows that he could not make a new design go, and he is too shrewd to embark on a new policy with such small chance of success attending him."

"But the new frames are scoring a big hit on the other side of the water," suggested the travelling man. "The cross frame seems to be securing all the attention this season. Scarcely a maker is daring enough to go through the season without something of the kind to offer his customers."

"Appearances are frequently deceptive," replied the first speaker. "The riding season has scarcely begun, and it is entirely too early to form an opinion of the proportion of sales which fall to the different types. The cross frames may fall flat, buyers preferring the diamond frame. The fact that the latter is not being shelved altogether, but is always held in reserve, shows that such an outcome is not altogether unlooked for."

"No matter what happens over there, however," he continued, "it will not have any effect on the trade in this country. We have long ceased to take our cue from any other country, and it is not likely that the habit will be resumed at this late day. The machines that come from our factories are the kind the people want, and until they switch over there is no likelihood of any material changes being made."

"Besides, it is easy to demonstrate that the diamond frame is better and handsomer than any of the new designs you refer to. In fact, it won its great victory over the multitude of other forms which prevailed eight or nine years ago because of these two points of superiority. It is pre-eminently the survival of the fittest, and no amount of talking will convince me that there is any necessity for a change."

"Just think for a moment what experience really shows. What portions of the frame—regarding, for the purpose of discussion, the front forks as a part of it—need to be strongest and most rigid? The lower rear forks and the front forks, of course. The remainder of the frame never gives any

trouble—at least, by comparison with these two parts. And even if it did, the result would not be anything like as disastrous as in the former case. Could there be plainer proof that it is a mistake to further strengthen the front half of the frame?

"If the lower rear forks are weak, loss of power or efficiency is the immediate and inevitable result. Nothing can prevent this, and the matter will grow worse instead of better the longer the machine is ridden. This means that the rider is continually putting effort into the pedals for which he does not get a return in the shape of efficiency."

"It is even worse with the front forks. If they are weak there is continual danger of a fracture, and nothing more serious could possibly happen than a failure at this point, for the rider is utterly helpless and can do nothing to prevent an ugly fall. How many times this occurs is a matter of common notoriety; and while a change for the better has taken place of late years, there is still no great margin of safety."

"Doesn't it stand to reason, therefore, that if the front half of the frame is strengthened the front forks and the rear forks should be bettered at least as much? You may make a fork of ample strength to withstand anything, so strong that the frame will give way before it does, which is the ideal condition; and if you put more metal or more tubes in the front part of the frame you have got to do the same thing to the front forks. If you don't the conditions will be just reversed; the front forks will give way under stress instead of the frame, and an ugly fall will be the result."

"Now, this would be just what would happen if the diamond frames were changed, as is being done by English makers. They are between the devil and the deep sea—or would be if they were in this country. When they put an extra tube in the front portion of the frame they must either strengthen the front forks, thereby adding considerably to the weight of the machine by this double addition, or they must leave the front forks as they are, and thus render it almost certain that they will give way at the first severe shock."

"It appears to be different across the water, but here riders will not stand for more weight, certainly not unless they can see a mighty good reason for it. And in the case of a departure from the diamond frame almost the only reason that can be advanced is the desire for a change."

"No, I tell you, we are on the right track. If the diamond frame is ever displaced it will be by a design having something more solid behind it than a desire for novelty."

Lamp law Passes Assembly.

The Doughty bill requiring that all rubber-tired vehicles in New York State display lighted lamps after sunset has passed the Assembly and is now before the Senate for action. As the Legislature will adjourn on the 19th inst., the fate of the bill is, however, problematical.



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as Will Give the Very
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Fisk Tires

Rigid Inspection

is one of the precautions taken with Fisk Tires that has served to give them their enviable position among things cycling.

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THE BICYCLING WORLD

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and MOTORCYCLE REVIEW

In which is Incorporated
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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, APRIL 11, 1901.

The Joy of Johnny Bull.

The expected has happened. John Bull's cap is in the air. His throat is full of chortles. His lion's mane is shaking for delight. His joy is of the semi-delirious sort. And all because of the decline of America's cycle exportation.

John's own exports are nothing to brag of. But a little thing like that doesn't worry John. It is so long since he has had a chance to witness anything but the shrinkage of his own paunch that Uncle Samuel's slight discomfiture over the falling off of the foreign demand for his bicycles gives the chunky gentleman such a transport of bliss that all else is forgotten in its enjoyment.

Of course, John knows what caused our loss. He knows everything. The size of his stomach proves it. His nimble-witted editors all agree that we have advanced every reason but the right one. This they very generously supply. The world, they say, has tired of American rubbish. Bull himself has always maintained his standard—of course

he has! Ten or twelve years ago he used to ship us whole cargoes of his stuff. We used to pay 45 per cent duty on it. We therefore know something about it. And if that standard is the one that is still maintained, the reduction of the Bull paunch and the ascendancy of Uncle Sam are easily explained.

John, though, was always full of erudition. He holds that the rest of the world are fools. The merchants of the earth—including not a few on his own beloved isles—don't know good stuff from bad! They bought and buy American rubbish in preference to English quality simply because it is rubbish! It's a nice little way peculiar to merchants the world over! Rubbish sells so much better and gives so much greater satisfaction! John's implied compliment to the commercial instincts and principles of the foreign buyers is touching. We trust that it will meet with the measure of approval and applause that it merits.

But, Johnny, take the laugh out of your sleeve for a moment and glue your ear close to the 'phone: While you are holding close to your chest the joy that our loss has inspired, don't forget these things—we have lost, and you have lost; but, large as is our loss, we still lead the world. That means that we lead YOU—that you are in second place, with Germany right at your heels, while we are still several open lengths ahead of you, and full of faith in our ability to stay there and to give the world the same bicycle or a better one for less money than you have ever turned out or seem able to turn out. Put that in your pipe, Johnny, and draw hard!

Surprises of Instalment Sales.

Two per cent is a very small amount to charge to profit and loss, no matter what the business may be.

Many concerns conducted on what are deemed very conservative lines charge up each year a sum considerably in excess of this. Furthermore, their action is not regarded as unusual, or one calling for any marked change in the handling of credits. Wherever there are gains there must be losses, and with this comforting reflection the subject is dismissed.

When, therefore, it is demonstrated that the average losses from instalment sales in the bicycle trade do not exceed 2 per cent, it is only natural to wonder at it.

For instalment sales have been held up to scorn as the worst example of a hopelessly bad trade. As made by the average dealer, the sale of cycles is held to be conducted on

false principles, the established rules observed in other businesses being cast to the winds. As for instalment sales, they out-Herod Herod in the matter of laxity.

Yet it appears, after all, that the loss on such sales rarely exceeds 2 per cent. Sometimes it falls below this figure, and this is not deemed anything extraordinary.

To compensate for this trifling loss there is an advance in price, for the time accommodation, of nearly 10 per cent. This is, of course, somewhat reduced by the interest charge, but there is still a very tidy sum left for contingencies.

It is small wonder, under these circumstances, that so many dealers continue to make sales on the time-payment plan.

An Ill-founded Charge.

Notwithstanding its extreme lightness—its carrying capacity being considered—the bicycle is far from being a fragile or ephemeral machine.

Whatever it may have been in the early days of the safety, or that subsequent period when the featherweight was at the height of its glory, it has since undergone a vast improvement.

It is the fashion in some quarters, however, to harp continually on its lack of durability; to assert that it is short-lived and continually in the repair shop; to hold, in short, that in its construction stability is sacrificed to lightness and durability to the exigencies of the necessary low factory cost.

Nothing could be much further from the truth. Some ground formerly existed for such charges, but it has long since been removed.

There are still cheap bicycles and poorly constructed ones. In all likelihood the time will never come when the contrary can be truthfully asserted. But such machines are in a minority, a minority which is becoming smaller every year.

Instead of being racked to pieces and rendered almost useless after one year's use, as is sometimes asserted, bicycles of the better class bear a considerable resemblance to the "one-hoss shay."

During the guarantee period, whether that be long or short, they are seldom the subject of claims. They keep out of the repair shops or find their way there for other causes than defects in workmanship or material. This holds true even after the first or second year has elapsed.

Whether they remain in the hands of their original purchasers or pass to others as sec-

ond-hands, this statement holds good. Under reasonable and intelligent usage such machines are almost beyond criticism.

They will even stand an inordinate amount of abuse without materially deteriorating. No better value can be found to-day than a bicycle of any one of a dozen makes after it has undergone a thorough overhauling at the hands of a competent repairman. It will be found fit for years of service.

There is a bad side to this remarkable longevity—as tradesmen view it, at least.

It hurts trade, both that of the retailer and the repairman. To the former it means fewer sales, to the latter less work.

But the present condition of affairs is, on the whole, much more satisfactory than the one which prevailed during the feather-weight era. The satisfaction derived from making, selling and riding good bicycles is not to be lightly held.

Will Experience Prove Profitable?

In some respects the present season is the most interesting the dealer has faced.

Unless all signs fail he is due for more business and better business than has been his portion since the boom burst.

The oft-prophesied and prayed-for revival of cycling interest appears something more than wishes or a springtime fancy. Every day of sunshine brings into the stores evidence that the mooted revival contains substance.

From the trade's standpoint the season is the more interesting because it will demonstrate whether or not the retailer has profited by the experience of the past.

He has had experiences enough to fill several volumes, and if the proverb holds true a return of rational prosperity should not bring with it a return of all those traits and tricks that have given him only a bare living during late years.

The keystone of commercial life is to do business at a profit or not at all. To make a sale merely for the sake of making it, or for the sake of preventing a competitor from making it, is not business; it is slow suicide. The policy has "killed" many merchants; it will "kill" all others who pursue it. It is well to realize that one man cannot control the trade of a town unless it is a town of the one-horse variety. There is small purpose in attempting it in any other place. Be active, alert and energetic, but don't overreach yourself. Get all you can—at a profit—and be content with your share. Don't try

to drive the other fellows out of business. You are only one; they are several.

Don't be penny wise and pound foolish. Push the sale of the goods that promise the best profits. Let your policy be not how many, but how much. Sell a cheap wheel only when you have to. Talk high grades first. This is an era of qualities rather than quantities. Recognize the fact and fight it out on that line. At present prices the sale of one hundred high grades is usually more profitable and more satisfactory than the sale of two hundred cheap bicycles. Keep the cheap ones in stock, of course, but don't "lose your head" simply because your rival is selling three wheels to your one. Your one may mean more profit than his three. Don't let that will o' the wisp cry, "Meet competition!" lure you beyond your depth. The swamp, you know, is a favorite haunt of will o' the wisps.

Try to work in harmony with your fellows. Don't be too suspicious. Have some faith in the common honesty of man. If an organization of dealers does not already exist, try to bring one into being. There was never a time when unions of cycle dealers would serve better ends. Rightly wielded, they are mighty weapons with which to fight the price-cutting evil. We do not mean merely by the adoption of repair tariffs and agreements concerning second-hands.

Price cutting does not sell more goods. It merely quickens the demands for a limited period, one dealer obtaining at lessened profits the business that would be shared by all. Ordinarily a dealer cuts only when he is overstocked and feels that he must move the goods. One cut leads to several, and several to chaos. An organization working properly can prevent the first and most dangerous cut. The members can do one of two things—conduct a joint and prearranged clearing sale of the particular article, or each can take over a portion and clear it through the regular channel. If, notwithstanding, the price cutter crops up, he can be beaten in only one way—by being driven out of business, and he can be driven out only by being forced to do business without profit. Unaided, one dealer could not effect this. A union of several, sharing the losses which the policy involves, can accomplish it quickly and well. This is one of the greatest but most illy recognized benefits of organization.

And look out for the "leaks." Take care of the dimes; the dollars will care for themselves.

In a word, have some determination and foresight, and profit by the experiences of the past. None knows them better than yourself.

Success or Failure.

Does the success of a season depend on the submission of machines embodying novelties in construction?

Must buyers be tempted with departures from the accepted standards, with the painful alternative presented of their holding aloof if the trade does not provide them?

If these questions are answered in the affirmative the next query is, Are the novelties found on the 1901 patterns of sufficient importance to fulfil the prescribed conditions?

Will the three C's, for example—the coaster-brake, the chainless and the cushion frame—supported by a number of minor changes, be regarded as altering the bicycle sufficiently to impel buyers to purchase new machines on their account?

The answers to these various questions will, it is pretty safe to say, determine the success or failure of the 1901 season.

If reports current in retail trade circles are to be given entire credence, it is success, not failure, that is coming.

But, it will be retorted, such reports are not an infallible barometer. The view of the average dealer in springtime is almost certain to be an unduly hopeful one; he is in the habit of discounting to the full the effect of the expected business. Consequently when the returns are all in the tale they tell is quite as likely to be radically different from his predictions as otherwise.

It only remains, therefore, to wait a little longer and see how results match anticipations.

En passant, it may be said that the latter are unusually bright, and appear to be better supported than for some years past.

On the theory that it is better to have the bad weather come during the early part of the spring than for it to put in an appearance later and interrupt a season that is opening nicely, there is no real cause for complaint as yet. The pent-up enthusiasm will find an outlet in good time.

The slump in American cycle exports is interesting reading as furnishing a 'lead' to British manufacturers, for where the Yankee can go so can the Briton, and one better.—(Wheeling.

Since when?

INSTALMENTS INVITING

Some Popular Notions Controverted—Why the Business is Profitable and the Losses Less than Supposed.

Few intelligent business men will attempt to controvert the bald statement that cash sales are infinitely more satisfactory and better in every way than those made on the instalment plan.

Even those concerns which sell on instalments and make a success of this feature of their business will not dispute the above assertion. If they could choose between confining their trade to cash transactions and making long-time sales—the volume of business to be approximately the same in both cases—hesitation would be impossible. The cash plan would be adopted and never a thought given to instalments.

But when the advocates of cash sales go further and declaim against instalment sales in toto, asserting that the system is vicious in principle and disastrous in practice, they quite overshoot the mark. They overlook numerous cases, most of them in plain sight, which easily and convincingly refute this charge. The best judge of the matter is not the concern which has never done much in this line, or the other one which has made a failure of it; it is, rather, that considerable majority of dealers who have been through the mill and come out whole.

From the long list of arguments which can be adduced in support of selling on the instalment plan two stand out prominently—like beacons which light up the whole horizon. One is the fact that the old dealers, who should know most regarding the subject, are almost unanimous in contending that under proper restrictions instalment sales are both necessary and desirable. Nothing more to the point than this could be produced.

The second telling argument is found in the percentage of loss resulting from instalment sales. Investigation of the subject by the *Bicycling World* representative and talks with a number of well-informed dealers develop the surprising fact that few of them place their annual losses from instalment sales at more than 2 per cent. A few go above this, but they are offset by others who claim a smaller loss than even 2 per cent. It is probable, therefore, that this figure is pretty near the average.

It need scarcely be said that this loss is a remarkably small one. There are few dealers who would hesitate to give a discount of 2 per cent for spot cash, and some of them would go as high as 5 per cent and never wink. Even then they would consider that a good stroke of business has been done, and

contrast it with an instalment sale, to the great disparagement of the latter. Yet this is plainly a fallacy, for the average loss in the case of instalment sales does not exceed 2 per cent, and the advance over the list price usually obtained makes the latter a better paying proposition than cash sales.

It is very plain that bicycles will be sold on instalments as long as they are sold at all. Come boom, come slump, as well as all the intermediate degrees, and the instalment sale continues to flourish. The dealer could not end it if he would, and would not if he could, for he knows that reduced sales would inevitably result.

It is true that the volume of instalment sales is not anywhere near as great as it was a few years ago, even when the shrinkage in total sales is taken into consideration. Nor are instalment sales made on the old principle of letting bicycles go to every applicant, no matter who he was or on what terms he desired the machine. To say that these methods are no longer followed is simply to intimate that businesslike rules are now in force.

Although list prices have undergone great reductions, and it may seem at first blush that it is an easy matter for any one to buy a bicycle for cash if he really wants it, this is very far from being the case.

To many of the purchasers of to-day the payment of \$50, \$40, even \$25, in a lump for a bicycle is a physical impossibility. They must have time to get the money together, and no more all round satisfactory method could be conceived than that of saving the money while the bicycle is being used. It is much easier to practise the necessary economies with the bicycle than without.

Another class of buyers, while able to pay in cash, yet are loath to do so. To them it seems much easier to make several payments, extending over a number of months, than to liquidate the debt at one fell swoop. It appears to come easier to do this, and they will frequently adopt such a course when there is no real necessity for it.

Still other buyers go in for the instalment plan because of a feeling that by doing so they obtain a hold on the dealer. If they pay in cash, they argue, and anything goes wrong with the machine the dealer may make it right or he may not; but if it is not paid for he knows that he must do so, and instead of hesitating he takes instant action. This is rather a curious view to take of the matter, but that it is taken dealers will testify.

It being plain, therefore, that instalment sales must be made if good and needed business is not to be turned away, the next question is how to surround it with the proper safeguards. In the trade to-day no such risks as were freely taken years ago are possible. The dealer must, if he would avoid disaster, get full value for the goods sold. Very few losses would wipe out all hope of profit.

The first step, of course, is to scrutinize closely the applicant for credit. If he is honest and well intentioned, and in a posi-

tion to pay for the bicycle he desires to purchase, the rest is almost entirely a matter of detail. But if he fails to meet any of these conditions he had better be turned down. He is not a safe risk, and as such is to be severely shunned.

If he passes this ordeal with flying colors the next step is to secure his signature to a contract that will bind him. Hundreds of forms have been drawn up, many good, some bad. In some States the favorite method is to lease the machine, agreeing to give a bill of sale when the last payment is made. In others a conditional sale is made, the bicycle remaining the property of the seller until the contract is completely fulfilled. A form of the latter kind, that used by the George N. Pierce Co., is appended:

"For value received I promise to pay the George N. Pierce Co., or order, dollars, as follows: One bicycle, No. at dollars, dollars in cash, and not less than dollars to be paid on the day of every week (month) hereafter until the said sum of dollars is fully paid, payable at their place of business; and it is hereby expressly understood and agreed that one bicycle, No., for which the above-named sum is promised to be paid as above, shall be and remain the property of the said the George N. Pierce Co. and its assigns, and subject to its control, and shall not be removed from until the said sum is fully paid; and I further agree that should I change my residence during the continuation of this agreement I will notify the said the George N. Pierce Co. in writing of said change and new place of residence, and it is further expressly understood and agreed that should default be made in the making of any of the said payments as above specified, and should the same remain in arrears and unpaid for the period of five days, or should any condition, stipulation or agreement herein contained be violated, or not kept by me, then in any such case the whole sum remaining unpaid on this note or agreement shall at the option of the said the George N. Pierce Co., or its assigns, without notice become immediately thereafter due and payable, and no waiver, change or modification of any of the foregoing conditions, undertakings or agreements shall be assumed, proved or deemed to be assented to or in any manner have any force or effect, or the rights of said the George N. Pierce Co. hereunder be in any manner affected or impaired, unless such waiver, change or modification be indorsed on the back hereof, and subscribed to by the said the George N. Pierce Co., I will, upon request of said the George N. Pierce Co., return said machine to said the George N. Pierce Co., and will allow their agent or representative peaceably to enter my house or other place where machine may be kept and to then and there take possession of and remove the said machine, and to sell the same at public or private sale, and that upon all such payments being made as above specified, and not other-

VICTIMS TAKE EXCEPTION

Worcester Motorcyclists Appeal to Higher Court in Running Down Case.

As was intimated in the *Bicycling World* last week would be the case, an appeal has been taken from the verdicts recently rendered in the Superior Court at Worcester, Mass., against Motorcyclists Havener and Adams for the alleged running down of Henry A. Corey. On Thursday last counsel for Havener filed exceptions to the rulings of the court.

The finding of verdicts against both Havener and Adams is vigorously attacked on the ground that both were not equally liable, even if any liability were established, and that the plaintiff was unable to say which, if either, of the defendants caused the alleged frightening of Corey's horse. It is also denied that the men or their machines caused the horse to run away, or that they were riding fast, or that there was any reason why they should cause a horse to take fright.

The salient points of the exceptions taken follow:

"This case and the case of Corey, the same plaintiff, against Adams were by order of the court tried together, each being for the same injury, but distinct and separate cases. The plaintiff's evidence showed that the defendant in this case and Adams, the defendant in the other case, were riding on separate vehicles along a public street in Worcester at a rapid rate of speed.

"The plaintiff testified that there was probably room for two wagons to pass between him and the car track. He also said that his horse took fright, but was under control and guidance until he overtook the defendants, and, running between them, the horse shied and he then lost control, his wagon wheel struck another wagon going in the same direction, and he was thrown from his wagon and injured and his horse and wagon damaged.

"The defendant did not dispute the fact of the injury. There was considerable variance as to the rate of speed at which the defendants were going, as well as the speed of the plaintiff's horse. The plaintiff and his witnesses testified that neither defendant nor Adams as they rode along did anything unusual or out of the ordinary course, but the vehicles were noisy and they rode at great speed.

"The plaintiff and each of his witnesses were asked on cross-examination if they could tell which defendant or which vehicle caused the horse to take fright, and each was unable to tell. The defendant testified, and also Adams, that they were wheelmen for many years' experience and had ridden the tricycles all the season; that Havener is a dealer in such vehicles and that they were popularly known and known to the trade as tricycles or motor tricycles; that the vehicles they rode were tricycles built the same as an ordinary tricycle with pedals

and chain and propelled by foot power, with the addition of a gasoline engine attached to the axle; that power generated by this engine could be used in addition to the foot power, but at all times they kept their feet on the pedals; that it is necessary to start the tricycle by foot power before the engine will work; that the power of the engine is auxiliary to the foot power.

"They further testified that the engine when in use does not make a very loud noise, and when the power is shut off the noise is only such as is caused by the piston being pushed up and down by the momentum of the tricycle, and is very slight and can be heard only a short distance; that many of these machines are in use in Boston and other places; they said that they were riding along, one some thirty or forty feet behind the other, and as it was quite a rough and steep hill they each had the power shut off, as it would not be safe or prudent to ride down such a hill with the power on, and that they were going about seven miles per hour; that they rode in the ordinary way, and they did not know the horse was frightened until it ran up behind them. Each tried to keep out of the way. All this happened, by the plaintiff's testimony, in a distance of three hundred feet from the place where his horse took fright to the place where his wagon collided. There was no evidence that defendant, or either of them, knew that the horse was frightened as they passed it.

"The plaintiff introduced the city ordinance of Worcester, which prohibited riding on the streets at a speed of more than eight miles per hour. The defendant objected to putting in the ordinance, because the vehicle on which defendant rode was a tricycle, and the statute of 1894-1900 did not apply. The court overruled the objection and allowed the ordinance to go to the jury, and plaintiff's counsel used the same in his argument.

"There was evidence on the part of the plaintiff that the vehicles frightened other horses along the same road after the accident, owing to their great speed. The defendant objected to this evidence, but the court allowed it to be put in. The defendant requested the court to instruct the jury that, the evidence showing that the two defendants were on two separate vehicles entirely independent of each other, and there being two different suits for the same injury, the burden is on the plaintiff to show which one of the defendants, if either, was to blame. If it is not clearly shown which one of the defendants caused the accident, then plaintiff cannot recover.

"Defendant also requested the court to instruct the jury that, there being two defendants and two separate suits, and the cause of action against each being for the same injury, if you find for the plaintiff you must assess the full damage and determine against which defendant. You cannot assess full damage against both, as that would be giving double damage.

"To all of which ruling, exclusion of testimony and refusal to rule defendant duly excepted."

wise, the title of said property shall pass to me. I aver that I am twenty-one years of age, and the receipt of a duplicate copy of this contract by me is hereby acknowledged.

"In case said bicycle be retaken by said the George N. Pierce Co. the same may be sold at public or private sale by said the George N. Pierce Co., without notice or accounting to me; and I hereby expressly agree that payments made by me prior to such retaking may be retained by said the George N. Pierce Co. in lieu of rent of said bicycle and as the fair rental value thereof; and I hereby expressly waive the benefit of any and all statutes of the State of New York to the contrary."

As additional precautions some dealers require the purchaser to sign a series of promissory notes, the dates and amounts corresponding to the deferred payments on the bicycle. Others require the signature of a guarantor, this sometimes rendering him liable for the debt in the event of its non-payment, and at others simply recommending the purchaser as reliable.

The promissory note plan is a good one, as it can be collected by ordinary legal processes at any time. No contract has to be proven, and no controversy regarding the machine can arise.

These matters having been satisfactorily arranged, the next thing is to see that the deferred payments are made at the proper times. It is best to send notices a few days in advance of the due date, and in case that does not have the desired effect the collector should take up the matter and obtain either the money or a satisfactory explanation.

Whatever the arrangement, pains should be taken that the matter is not allowed to take care of itself. The debtor should be impressed with the fact that there is but one thing for him to do—to pay in conformity with his promises or to give a good reason.

The amount to be paid down and the deferred payments are matters requiring a great deal of thought. One dealer will take a low first payment and larger monthly ones and find the plan work satisfactorily, while another will insist on more cash and then permit greater leniency in the payment of the balance, the ultimate result, however, being practically the same as in the first case.

Experience shows, however, that it is rarely safe to accept less than 20 per cent of the value in advance, or to make the deferred payments run over a period of six months. In fact, it is found much better to make the cash payment 25, 30, or even 40 per cent of the cost, and to have the transaction closed in four or five months. But there are cases where the more lenient terms can be given with safety.

It is the practically unanimous opinion of dealers that instalment business, conducted in the manner outlined, is both safe and satisfactory. It is on such lines that the better class of dealers throughout the country are proceeding, and they look for quite as good results in the future as have been obtained in the past—possibly better.

MYSTERIOUS WONDER

Large Story of a Boston Steam Bicycle That Comes via Brooklyn.

Of the early motor bicycles, many, perhaps most, employed steam as a means of propulsion. Since the construction of such machines has been taken up in earnest, however, makers are practically unanimous in regarding gasoline as the source of power which comes nearest to being the ideal for bicycles. Consequently when motor bicycle is mentioned, or even motorcycle of any kind, they are instinctively linked with gasoline machines.

From Brooklyn, however, comes a story of the renaissance of steam as applied to the bicycle. A Boston inventor, it is said, has constructed in the former city a wonderful steam motor bicycle; how wonderful it will be understood when it is known that the motor is claimed to be one of 2 horsepower, weighing but fifteen pounds, and being but two inches wide. With this marvellous motor the bicycle will travel at the rate of twenty-five miles on the road and forty on the track.

"The bicycle," it is said, "was simply built to show the practicability of his new engine, and fulfils every claim of the inventor, being light, easily adjusted, handled and cared for.

"The beauty of this new motor lies in its simplicity and weight and mode of construction, for, though lighter than any motor per horsepower yet placed upon the market, nothing has been sacrificed for lightness. The motor upon the bicycle weighs but fifteen pounds, and is 2 horsepower.

"It is a three-cylinder, single-acting engine of the brotherhood type, so well known to engineers on account of its favorite use on the Silsbee steam fire engines in the different fire departments of our large cities. It is provided with a rotary valve, which operates the three cylinders in rotation, with but one moving part. There are ball bearings on the driving or sprocket side, and a plain bearing on the valve side, which has to suffer but little strain.

"The motor is so narrow, being but a trifle over two inches wide, that it can be attached to the sides of the frame of a bicycle, instead of, like other motors, having to be placed in the middle of the frame. This allows it to be placed in a position where the chain does not interfere with the rider in any way, and the tread of the whole is of the regulation width.

"The large sprocket on the rear hub, instead of being screwed on, is provided with a one-way driving clutch, so that in coasting on the machine the motor is at rest and does not offer any resistance to the progress of the wheel. On opening the throttle the motor immediately engages the wheel, and drives as though rigidly connected. It also

allows the wheel to be handled without pushing against the motor.

"The whole bicycle complete, with everything on, weighs but eighty-five pounds—which is lighter by at least a good many pounds than any other motor bicycle upon the market per horsepower.

"The boiler in itself is an innovation, being a new scheme of the inventor's. It is a water-tube type, built upon new and original lines. The tubes are specially shaped, so that they present large heating surface, with a small area for water, making a very high pressure steam. The boiler weighs about fifteen pounds, and fits within the frame directly in front of the seat-post tube, and is but four inches wide."

The Gorgeous in Catalogs.

It is so usual that catalogs are "all cover," that the Hartford Rubber Works's 1901 edition, which is being issued this week, is sure to create a wide spread buzz and set a new standard. The cover of this catalog is not only a thing of color and beauty but the illustrations that illuminate the letter press concerning Hartford tires are in keeping. They, too, are printed in four or five colors, making the volume a truly gorgeous one and one that will attract and interest. There should be a rush for copies, and most of them, it is safe to say, will be carefully preserved.

Worcester Dealer is Overworked.

Reports from Worcester, Mass., of good trading are borne out by L. C. Havener, who writes the *Bicycling World* that he is "having a great business so far, and have had more than I can do." He says that the inquiries for motorcycles are numerous, and indicate lively buying of this newest form of cycles.

Gridley Denies all.

F. W. Gridley has filed an answer in the suit brought in the Municipal Court, Syracuse, N. Y., against him and the members of the old Dodge Cycle Company by workmen for wages. He denies that he was a member of the firm, and alleges that he believes the services for which payment is claimed were rendered to the Dodges.

Helps Pedal Makers.

Since the fashion of extremely low dropped crank hangers has passed away pedal troubles have dwindled in like proportion. With a reasonable drop to the crank hanger—say 2½ inches—there is little or no danger of the pedals striking, even when turning corners. Pedal makers should rejoice at the new state of affairs.

Cycle Show in the Czar's Domain.

Warsaw, Poland, is making ready for a bicycle and sporting goods show. Foreign manufacturers are very generously invited to participate.

SECRET PROCESSES

They Parted McGurn and his Money; he now Sues to Learn "What's What."

Considerable uncertainty surrounds the suit brought at Syracuse, N. Y., by William J. H. McGurn against E. Doer Clark to recover \$625, this being made up of \$275 cash invested and \$350 for services rendered.

In the complaint it is alleged that prior to October 18, 1899, the plaintiff was induced to enter into an agreement whereby he spent money and time organizing the New Era Frame and Supply Co., which was incorporated in the State of New Jersey, with a branch office in Syracuse. According to the articles of incorporation, it is alleged, the purpose of the company was to manufacture and sell all sorts of bicycle frames and sundries and all sorts of vehicles.

McGurn alleges that the defendant claimed that he was the originator and owner of a secret process by which bicycle frames could be moulded into form cheaply and stronger than by brazing.

It is alleged that the defendant violated all the promises made. It is also alleged, on information and belief, that the defendant caused to be incorporated another company, known as the National Frame and Metal Co., and is now acting on behalf of that company, and that it is using the alleged secret process.

E-Z is Suing, too.

The litigation involving the E-Z and the Wyoma coaster-brake promises unusual interest. It develops that Edward E. Ziegler has also brought suit against the Reading (Pa.) Automobile and Gear Co. for infringement of his patents covering the E-Z, of which the Reed & Curtis Machine Screw Co., of Worcester, are sole licensees. In referring to the matter last week, the *Bicycling World* confused the Ziegler brothers, stating that Edward E. had once been identified with the Reading Co., when as a matter of fact, it is J. George of that family who was meant. As it is, Edward E., who is in business in Philadelphia, claims that J. George used his ideas in bringing out the Wyoma and thereby infringed his patents issued June 12 and August 14, 1900, respectively.

No Decline in France.

According to the returns for 1900, just issued, there are in France 975,878 cycles and 11,252 motorcycles. In 1899 the total was 838,856. Of the total for 1900 the Department of Seine (Paris) accounts for 212,510 cycles and 3,449 motorcycles.

Here's a South African Customer.

The De Beers and Velocycle Depot and Workshops, No. 40 De Beers Road, Kimberly, South Africa, is in the market for American cycles, parts and sundries.

BICYCLES FOR WAR

Specifications Showing how the British Believe They Should be Built.

It looks as if there were going to be some fine pickings for the British manufacturers in the shape of fat orders from the War Office. Something is plainly stirring those sleepy, fat-headed old officials up as they have never been stirred before in the memory of living man, and good is resulting in consequence.

In February the War Office asked for bids for 1,200 bicycles, and one English firm advertises that it has been given an order for 800 of them. This is a tidy little order, and with every probability that there will be others placed it is not at all surprising that many firms are showing interest in the matter. Of course, nothing is made public regarding prices, but it is to be supposed that they were fairly high, especially when it is known that a long list of accessories will have to go with each machine.

Not a little criticism is being made of the specifications to which the machines must conform. The Cycle Manufacturers' Trade Protective Association has taken this matter up and called the attention of the War Office to certain bad features, from the average manufacturer's standpoint, in these specifications, but it is not known whether they will have any effect.

The specifications follow:

(1.) The following parts to be generally similar in design and in all respects interchangeable with those on sample machine to be seen at the Royal Small Arms Factory, Sparkbrook. All the component parts of a fitting, as well as the fitting itself as a whole, must readily assemble without the necessity of easing by screwing, apping or filing: Ball head, with special lock; front hub; back hub, with chain wheel and foot-

step; bottom bracket, with $6\frac{1}{2}$ -inch cranks and chain wheel; back fork bridge; fork ends, with parallel chain adjustment and back stay ends; seat-pillar lug; $4\frac{1}{2}$ -inch rubber pedals; $\frac{1}{2}$ -inch pitch roller chain; spanners with screwdriver; front rim brake.

(2.) All tubing to be of the best weldless steel, free from all superficial faults and signs of unsoundness; the bore of the tubes to be concentric with the outside.


(3.) The following sizes and gauges of tubing to be employed: Top tube, $1\frac{1}{8}$ -inch outside diameter \times 20 I. W. G., double butted, 18 I. W. G. \times 4 inches long; down tube, $1\frac{1}{8}$ -inch outside diameter \times 20 I. W. G., single butted, 18 I. W. G. \times 4 inches long; bottom tube, $1\frac{1}{4}$ -inch outside diameter \times 20 I. W. G., double butted, 18 I. W. G. \times 4 inches long; bridge tubes, 11-inch outside diameter \times 18 I. W. G.; right-hand back-fork tube, 18 I. W. G., B. S. A. standard D-section; left-hand back-fork tube, 20 I. W. G., B. S. A. standard D-section; back stays, 22 I. W. G., B. S. A. standard D-section; front forks, 16 I. W. G. at top, tapering to 18 I. W. G.

(4.) The frame to be built to the dimensions shown on drawing, and must accurately fit the gauges and jigs approved by the inspector. All joints to be pinned and brazed with a pin passing through both sides. The back stays to have a bridge of the same section of tubing as the back-stay tubes, securely brazed in the position shown on the drawing, for fixing the mudguard to chain line $1\frac{3}{4}$ inches; tread, 4 15-16 inches.

(5.) Steel mudguards to be fluted shaped, with solid steel stays. Leather or spring washers to be used where necessary in order to prevent jarring.

(6.) Handle bar to be 1 inch outside diameter \times 18 I. W. G.; to be to the dimension and shape shown on the drawing. The handle bar to be fixed to the handle-bar stem with a lug, as shown, and to be securely pinned and brazed. The handle-bar stem when polished and browned to fit sample

ball head. Length of stem to be 8 inches from under side of lug. The lug to be machined from a stamping of mild steel.

(7.) Seat pillar to be  shape, cross tube $\frac{7}{8}$ inch outside diameter \times 16 I. W. G.; stem 1 inch outside diameter \times 16 I. W. G.; length from under side of cross tube 8 inches.

(8.) All nuts and bolts used in the construction of the bicycle, as well as those for the accessories, such as saddle, bell, etc., to fit B. S. A. spanners.

(9.) Spokes—Leadbeater and Scott's best toughened double butted, gauge 15, butts 13.

(10.) Pump—Benton and Stone's No. 1,915, with Lucas leather-lined clips; pump to be bronzed.

(11.) Gear—Hub wheel to have 22 teeth; driving wheel 48 teeth; gear 61.

(12.) Saddle—Brooks B22 military nut-brown; nuts to take B. S. A. spanners.

(13.) Toolbag—Brooks army, nut-brown, containing "Handy Outfit," "Vesta" oil bottle, wiper and stick of "Ferrubron Gator" chain lubricant; also set of (twelve) spanners, screwdriver and chain key, B. S. A. pattern, and supplied with the fittings.

(14.) Bell—Lucas's No. 61, browned all over.

(15.) Lamp—Lucas's petroleum, the new "King of the Road," black japanned.

(16.) Handles—Horn, fixed to handle bar with cement and screw.

(17.) Finish—Three coats all over best black enamel, varnished and stoved; all parts usually nickelplated to be browned.

(18.) Rifle clips—Black; metal parts browned.

(19.) "Quadrant" cycle rest (black all over) complete.

(20.) Kit carriers (black all over) complete, as per sample.

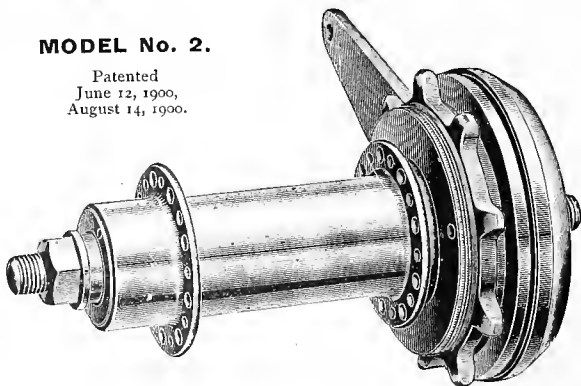
Chance for Bargains.

At the office of the American Express Co., Fourth street and Lafayette Place, New York, on April 30, an auction sale of unclaimed packages will take place. Among the consignees are found the names of the Weaver Cycle Co., Warren Cycle Mfg. Co., Wooster Cycle Co. and Eastern Wheel Works.

"E Z" COASTER BRAKE.

MODEL No. 2.

Patented
June 12, 1900,
August 14, 1900.



SIMPLICITY

LESS PARTS THAN ANY OTHER COASTER MADE.

With the "E Z" COASTER BRAKE fitted to your wheel all fear at once leaves the most nervous person, for you are in position to stop the wheel immediately—and always have it under control.

Your 1901 wheel should be fitted with the "E Z."

Any dealer can furnish it.

Send for Catalog "C."

Sole Manufacturers, REED & CURTIS MACHINE SCREW CO., Worcester, Mass.

MISSED MILLIONS!

Here's a Man Who Might Have Invented the Air Tire but for Ridicule.

The early history of the bicycle in this part of the world is rather interesting at this time, says the Detroit (Mich.) Journal, the more so because there are now living in Detroit the first men who rode or owned the first crude machines, which were more of a novelty than a practical vehicle. One of those who in the early years was a noted enthusiast among the owners of velocipedes is Captain W. T. Partridge, a real estate dealer, who resides at 607 Monroe avenue, and who still loves a spin on his wheel.

It was in 1866 when the first wheels were shipped to Detroit from the Woods factory in New York. They were heavy, unwieldy things, made of hickory, with gas-pipe frames and wooden rims bound with thin iron tires. Very few were purchased here, owing to their cost—\$75 at the time—and their weight and unwieldy shape.

In 1867 Captain Partridge, who was at that time the keeper of the Partridge Inn, at Walkerville, became enthused with the American idea of a velocipede, and began working out a design of a wheel which would be lighter and easier to handle. Early the following year he had made in a carriage shop at Malden a velocipede with a forged steel frame, 38-inch wheels and a long, easy steel spring saddle which took up most of the jar of riding on the hard steel tires. All bearings were brass journals carefully polished to make them ride easy. That year young Partridge came to Detroit, and in a few months had lent a zest to wheeling which added many to Detroit's growing bunch of velocipede owners. Races were held, and in 1869 Partridge challenged any rider in the country to meet him in a race for \$100. He made his fastest mile in three minutes, which was considered nothing less than marvellous in those days. It was an interesting sight to see him on the track, pounding out a three-minute gait in the extraordinarily peculiar position necessary on the old-fashioned bicycle.

At that time in Detroit there were a few owners experimenting with various schemes for improvement of the wheel. Young Partridge came within an ace of landing the most important discovery made in tire construction in the whole history of wheel construction. For several weeks he worked quietly at home trying to successfully patch together the ends of a hose pipe in such a way that it would hold wind.

"It was my idea that if it could be done and the pipe fastened by a clincher rim to the wheel I could pump the pipe up with a pneumatic pump my father owned, and I would have an easier wheel. Rubber cement was not easy to get, and I had a hard time," said Captain Partridge. "Finally my friends got onto the scheme, and every one made

fun of the idea, telling me that the hose would wear out as fast as tires could be made. I began to believe them, and finally abandoned the idea. I lost a fortune, no doubt, for within ten years a native of Ireland did carry out my very idea, and gave the world the first air-tube tire."

Captain Partridge also saw the necessity of a chain gear at the time, and tried to figure out a scheme for a gear, but failed to complete his ideas.

L. J. Bates, then an editorial writer for the Detroit Post, conceived the idea of a geared velocipede in 1868, drafted plans, and had one constructed by a local manufacturer of carriages. The wheels were large, the seat was elevated, and the gearing was a large ratchet wheel propelling a smaller one



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

attached to the axle of the rear wheel. It was a novelty, and attracted so much attention that he became known as "the man on the big velocipede." He rode it several seasons before the six-foot wheel with a diminutive trailer came out as a bicycle.

Make Them Too Good.

Although there has undoubtedly been a marked improvement in bicycle construction of late years, and a consequent diminution in the quantity of repairing required, the following statement attributed to one repairman must be taken with a great many grains of salt:

"Wheels improved? Yes; the trouble is, they are making them too confounded good. They don't break and don't wear out enough to keep us busy."

Canada's Cry for Trade.

The Canada Cycle and Motor Co. has branches established in both England and Australia. A conspicuous feature of their appeal for trade is the slogan, "Made under the flag," which is made a part of all advertising.

REPAIR WASTAGES

Little Leaks that Drain the Profits—How They May be Stopped.

There is more wastage in repairs than in any other department, writes a man who evidently knows what he is talking about. Part of that is owing to the fact that the nominal profit of repairs is considerable, and partly to the fact that the proprietor cannot give the repair department such close personal supervision as the store, and partly owing to the class of man in charge. The last-named particular is not unnatural.

The young workman in charge of repairs may be an excellent repairer, but may be lacking in ideas of method and order. One cannot expect a man to be first rate in everything, and if he is a good workman that is the chief concern.

As a rule the workman has a tendency to take a spoke or a nut and say it is "only" a spoke or "only" a nut, but that "only" will cost you a good deal in the year. The first requisite in the repair shop is to follow the old motto—"A place for everything, and everything in its place."

If a man has to hunt for tools or parts the loss in time becomes enormous in the course of a year. And his time is money when he is paid by the hour or week. There should be a ticket attached to every machine, and on that when it is returned repaired, ready for delivery, should be a record of the material used on the job. If this rule is carefully carried out you not only know exactly what a job has cost and (with the addition of the time sheet) what you can reasonably charge, but you are able to keep a close check on the repair stock.

In your repair stock book you enter material received and on the opposite side the day's usages, and if your man tells you he wants a fresh supply of anything, when your book shows that he should have a considerable stock, you can trace extravagance or wastage at once.

Of course, there always will be some wastage; you cannot get absolute perfection, but it will be very slight compared with what will exist if you have nothing better than a rule of thumb system. The very knowledge that such a system exists will make the workman more careful. With such things as cement, patching rubber, etc., the stock can be estimated once a week; it is obviously impossible to name the amount used on every job, and you can then get to know what has been used. By noting the amount of work done you can arrive at a fairly correct estimate of whether there is any extravagance going on or not.

Will Finally Vulcanize.

After many years the English Dunlop Tire Co. is about to begin vulcanizing the fabric into their tires. Heretofore this strip of linen has been merely pasted into the outer cover.

The Retail Record.**FIRES.**

Swayzee, Ind.—J. M. Galbrait, stock damaged.

Scranton, Pa.—John Rawlins, 216 Penn avenue, loss about \$3,000, insurance less than one-quarter this amount.

NEW STORES.

Red Oak, Ia.—A. L. Wilson.
Fulton, Ia.—Arthur Stewart.
Alma, Mich.—George A. Hill.
Lenox, Mass.—Ernest Collins.
Nashua, N. H.—Wheeler Bros.
Esbridge, Kan.—George Waugh.
Rockland, Me.—Harvey Addison.
Norwich, N. Y.—Thomas Manning.
Grand Forks, N. D.—Will Davidson.
Sandy Hill, N. Y.—Arthur E. Smith.
Bath, N. Y.—H. G. Curtis, reopening.
Paris, Me.—L. P. Swett, Bridge street.
Essex, Mass.—J. L. Tanner, reopening.
Ligonier, Ind.—A. J. Grades, repairing.
La Crosse, Wis.—Otto Gudenschwager.
Coatesville, Pa.—Ashton Rea, repairing.
Dover, Me.—George Boynton, repairing.
Petrolea, Ont.—William Kemp, reopening.
Ansonia, Conn.—M. J. Kelly, Bridge street.
Plainville, Conn.—J. G. White, Whiting street.

Whittenton, Mass.—Joseph Valentine, Broadway.

Elmwood, Conn.—Walter Ziegler, Pearl street, repairing.

Danbury, Conn.—William C. Heim, 2 River street, reopening.

Merrill, Wis.—E. W. Anderson, East Main street, reopening.

Bradford, Pa.—William Demler, 16 Pine street, reopening.

Appleton, N. Y.—Dunn & Co., Railroad avenue, repairing.

Norwich, N. Y.—C. H. Knepek, repair shop in Hotchkiss Block.

Utica, N. Y.—Edward Cronk and Russell Wheeler, Elm street.

West Chester, Pa.—Hilburn Cope, West Gay street, repairing.

West Rutland, Vt.—Harry Cummings, Main street, repairing.

North Dayton, O.—Danner & Gardner, 116 Valley street, repairing.

New Canaan, Conn.—George H. Stevens, Railroad avenue, will reopen.

Brewer, Me.—Bangor Bicycle Co. opened branch, with A. Beaupre as manager.

Johnstown, N. Y.—William H. Loft, of Gloversville, branch of 224 West Main street, with E. C. Bradley as manager.

CHANGES.

Worcester, Mass.—James J. Casey, 214 Main street, sold his stock to Charles S. Hurst, who will move it to his own store at 138 Main street.

South Lancaster, Mass.—Albert O. Scribner has sold his business to William Munn.

Paris, Ont.—Charles Banks has sold out to Messrs. Baker & Churchill.

Canandaigua, N. Y.—McKechie & Rush dissolved partnership; J. K. Rush continues.

Hastings, Neb.—Bert Shively succeeds Harry Waldrum.

Greenfield, Tenn.—F. M. Banks moved here from Trezevant.

South Haven, Mich.—George Anderson sold out to Kuhn Bros., Geneva.

Pittsburg, Pa.—Howard Royer & Co., closing out.

Marshalltown, Ia.—W. E. Redell succeeds E. E. Harlan.

San Marcos, Tex.—San Marcos Mercantile Co. changed its name to the Hutchings & Talmage Hardware Co.

Coggon, Ia.—Merriman & Campbell, dissolved.

Lyons, Ia.—Case & Taylor, dissolved.

Fairmont, Ill.—E. C. Laughlin, successor to Laughlin & Akers, has sold out.

Battle Creek, Mich.—Currie & Mills succeed L. A. Welling & Co.

Byron, Ill.—W. A. Smith succeeds M. A. Jones.

Goodell, Ia.—De Groff & Love succeed E. J. Bauman.

Chesaning, Mich.—Sperry & Fox succeed Sperry & Delloff.

New Sharon, Ia.—J. A. Garner succeeds Garner & Crowder.

Atchison, Kan.—J. C. Nass succeeds Nass & Hass.

Livingston, Mont.—A. W. Miles Co. succeeds A. W. Miles.

Bradyville, Ia.—Holton & Grey succeed D. B. Holten & Son.

Brockton, N. Y.—Brockton Hardware and Lumber Co. succeed C. F. Crandall.

Hudson, S. D.—Iverson & Miller succeed Steensland & Iverson.

Wheaton, Ill.—Decker & Ferry succeed O. S. Decker.

Mount Sterling, O.—Al Taylor succeeds Reale Bros.

Appleton, Wis.—William Tesch succeeds Stark & Tesch.

Afton, Ia.—M. W. Keating & Co. succeed J. Keating & Co.

Salisbury, N. C.—Rowan Hardware Co. succeed Gregg & Co.

Simpson, Minn.—H. G. & T. W. Taylor succeed S. H. Brown.

Byron, O.—Bentley, Wagner & Co. succeed Churchman & Coslet.

Haskell, Tex.—McCollum & Cason succeed McCollum & Co.

Corning, Ia.—H. E. Westhope succeeds Westhope & Beauman.

Fort Collins, Col.—E. R. Barley, sold out.

Southampton, N. Y.—George D. Grundy & Co., sold out.

Tempe, Ariz.—Bicycle Elec. Plumbing Co., sold out.

Clarendon, Tex.—S. Anderson, sold out.

Saunemin, Ill.—A. Cording, sold out.

Grafton, N. D.—J. A. Douglas, sold out.

Hope, N. D.—George A. Warner, sold out.

Praise Instead of Complaints.

The greater efficiency of the average chain is being frequently remarked upon. Breakages do undoubtedly occur less frequently than of yore, while the life of the chain has been increased to no small degree.

Ease of Braking.

It is only when a rider has become thoroughly accustomed to the use of a coaster-brake that he is able to appreciate to the full the vast improvement it is over the old-style hand brake. The mere task of applying the latter on a long hill was a serious one, sometimes entailing severe physical pain. There were apt to be times when it seemed impossible to grip the lever any longer, and then a rest was taken, with the result that the machine shot forward with new velocity, and the necessity for jamming the brake on with redoubled vigor quite made up for the momentary relief obtained.

Contrast that with the ease with which the coaster-brake is applied. The weight of the foot is more than sufficient to apply the brake hard enough to check the speed; and if a little extra effort is required it is there at hand, or at foot. There is never any question about being able to slow the machine sufficiently by this means. The rear wheel can be skidded at any time with comparatively little effort, while a partial release causes the machine to attain its former speed.

Tires Need More air.

Nearly one-half the troubles had with tires arise from their being ridden too soft, asserted a tire salesman recently. There is, undoubtedly, a great deal of truth in the remark, as will be demonstrated to any one who will watch the tires of the rider he meets on the road. An enormous percentage of them are so soft that whenever an obstacle is encountered the rim will be struck. Of course, all sorts of ills result from this, but riders seem entirely unconscious of the fact. Spare not the pump, should be the injunction laid on all customers by dealers.

Bicycles in Blaze at Malden.

Fifty bicycles and the building in which they were stored were destroyed by fire at Malden, Mass., on Monday night. The building was occupied by James A. Conway as a storehouse for bicycles. The blaze was caused by the explosion of a gasoline stove and the total loss is estimated at about \$1,400, on which there was an insurance of \$800 on the stock.

What the Three C's are Doing.

How the "three C's" have caught on! They are being discussed, criticised and lauded with right good will, and bid fair to score a big hit this season. To many old riders, who, regarding the pastime as passé, have been looking for something new, they will appeal with peculiar force. Since the pneumatic tire ushered in the boom there has been nothing like them.

What the Repair Shop Proves.

One has but to look in at a repair shop to see that it is more than tires that are undergoing repairs. Abuse, carelessness and neglect will consign even the best machines to the repair shop.

ABOUT MOTOR BICYCLES

Some Sane Suggestions Regarding Their Design and Construction.

At first glance the construction of a motor bicycle does not strike one as being a matter requiring any great thought, skill, experience or experiment. It is only when one begins to put general ideas into a practical form that the difficulties of designing such a machine become apparent, says the *Automotor Journal*, one of the most competent English authorities. Ordinary bicycles as now made are the outcome of many years of practical experience, and the theory of their action has apparently never been more than briefly considered.

The bicycle of to-day is essentially a machine which can carry a person over the roads, and which can be propelled by almost any normal individual; it is the most compact vehicle which is strong enough for the strains set up in it, both by the road and by the propelling force, and which is, at the same time, conveniently fitted for the application and transmission of muscular force to its driving wheel. For these reasons, and also for the obvious reason which is common to all forms of traction, viz., reduction of weight, the ordinary bicycle is the best proved form of a human propelled vehicle. It is necessary, however, to insist upon the importance of the fact that in its present form, it is essentially a man-propelled machine.

Before considering the application of a motor to a bicycle it may be as well to review some of the peculiar characteristics of the bicycle itself. Being incapable of standing upright alone, the rider is called upon to maintain his and its balance at all times, and this he can only do by a proper sideway distribution of his and its own weights (gravity) and by a corresponding adjustment of the direction in which these weights are being moved (momentum). In the second place there is no side strain tending to move the wheels in a direction parallel with their axles so long as the rider keeps a perfect balance and is taking a straight course on a flat road, but when the direction of travel is being changed, or when the machine is running on a cross slope, or when either of the wheels is diverted from its course by the uneven nature of the road surface, there is then a tendency for one or both wheels to skid or slip sideways.

The rider, when pedalling, is exerting considerable force on each side of the machine alternately, and he intuitively compensates for any loss of equilibrium (caused by this alternate pressure) by the use of other of his muscles than those needed for the propulsive effort alone. Since he is exerting this force, and since he is capable of distributing it so as to ordinarily maintain equilibrium, he is also able to vary the effect of his effort to such an extent as to cause part of it to also counterbalance any further want of

equilibrium which may be brought about by road conditions. The greater part of the rider's weight is placed at the back, and he thus secures a better adhesion of the rear wheel; this distribution of weight has the effect of also putting less "skidding" strain on the front than on the rear wheel, when turning a corner, because the momentum of the rider himself acts chiefly upon the latter. Further, the weight of the driver considerably exceeds that of the bicycle, and he, therefore, has direct control over the majority of the total weight.

In the design of a motor bicycle, the above characteristics and also the new features which are introduced by the presence of a motor, both in the way they affect the former and in the additional conditions imposed by the motor itself, should be carefully taken into account. The application of the motor essentially involves weight, and this extra weight may conceivably either facilitate the balancing of the machine when in use or may render it more difficult, according as to where it is placed and as to the conditions existing at any particular moment. The most important bearing which this weight has upon the problem is apparently in respect of its momentum when the machine is deviating from a straight course. Another varied condition, also introduced by the motor, is that the rider is no longer exerting his muscles to propel the machine, and that he is therefore less able rapidly to compensate for any loss of equilibrium. A man can vary the degree of force exerted by his legs with much more rapidity and accuracy when he is continuously pedalling than when he is intermittently and unexpectedly called upon to bring his idle muscles into play. For these reasons it would appear that the rider may have more work to do in maintaining his balance on a motor bicycle than on an ordinary machine, and that he is at a disadvantage in respect of actually doing it.

A consideration of the requirements of the motor itself—and we can only assume the employment of an air-cooled oil motor at the present time—shows that four essential conditions must be complied with:—It must be rigidly fixed, it must be so placed that the air passes freely around the cylinder, it must not be too near any part of the rider, and it must be conveniently arranged for the transmission of power to the driving wheel.

After having got even to this stage of the problem, we find that the chief axioms impose terms which are not altogether easy to comply with, and that numerous restrictions prevent the majority of preconceived arrangements from proving altogether satisfactory. Even if a design could be approved in the foregoing respects, there are yet other desirable features which should exist in a really suitable motor bicycle for general use. Before mentioning some of these, however, let us briefly consider the independent bearing of the question, as already specified, upon the form of the machine, the position of the motor, and the means of transmission.

As is often the case, there is a great ten-

dency for the appearance of a new machine to be taken into account to an exaggerated extent, and the public are entirely responsible for this, as they have time after time demonstrated the fact that they have already formed an opinion as to what it should look like, although they are totally ignorant of its relative utility in such a form. For this reason it is wise to adhere very closely to the present appearance of the ordinary "safety" bicycle, provided that usefulness does not suffer unduly in consequence. If, however, this were not feasible, the next best course appears to be to depart as far as possible from such an existing form; but whatever the appearance of the machine may be, the motor should be considered the main, rather than the auxiliary, propelling power, and the strains set up by it should be safely provided for.

Regarding the position of the motor, its great heat limits this to a very large extent, and, of those places which are available from this point of view, its weight imposes still further limitations. Below the rider's legs, in front of him, or some distance behind him, are possible positions, so far as heat is concerned, provided that it is not too near the tires. Its weight renders it advisable that it should be kept more or less within the wheel centres, so that its momentum will not increase the tendency to skid the wheels when a corner is being turned. It appears that manufacturers of motor bicycles generally aim at keeping the weight as low as possible, but it is an interesting question as to whether this renders the machine safer or otherwise, for, as Professor Boys recently pointed out at a discussion on the subject at the Automobile Club, skidding is more liable to occur on a bicycle if the weight is low, although its effect is less dangerous than if the weight is higher up. Placing the motor out of centre with the frame causes the cycle to be in balance only when it is leaning over out of a vertical plane, and this naturally would have a bad effect on the tires, besides increasing the skidding tendency. The practicable positions for the motor are therefore inside (or equally on each side of) either wheel, low down on the frame between the wheels, or on the front part of the frame; even the first of these places would probably be restricted in practice to the rear wheel, unless the weight was very small, because increasing the tendency for the front wheel to skid should be most carefully guarded against.

Concerning transmission there are numerous methods from which to choose. Direct driving involves greater weight owing to the low speed at which the ordinary-size wheels revolve—about twelve revolutions a minute for each mile an hour, with a 28-inch wheel. With high-speed motors speed-reducing gear (with a ratio of about 1 to 8 or 10) is required, and it can be obtained with belts, chains, toothed wheels or friction drives. Each of these forms of transmission is employed upon machines already in existence, but we must confess that neither the belt nor the friction system appears to us to be mechanically suitable for the work. The best method must necessarily depend upon the class of motor employed and upon its position on the bicycle, but there would seem to be little excuse for the use either of tire-driving friction wheels or of belts when chains could be equally well used; the advantage of flexibility seldom compensates for the troubles which must invariably attend the use of a narrow belt on the roads.

COMFORT

with

SPEED

is the

CUSHION FRAME

Motto.

The CUSHION FRAME is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold **WITHOUT IN THE LEAST DETRACTING** from the **SPEED** or **POWER** of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy, "get there" riders who at first "scoffed" the idea of **COMFORT** being combined with "speed and power" in a bicycle.

HYGIENIC WHEEL CO.,

220 Broadway, New York.

Owners of the Cushion Frame Patents.

OUR
CRANK
HANGER
DOES
IT.The
RacycleDOES
WHAT?
MAKES
IT RUN
EASY.**ECLIPSE BICYCLES**

Better than ever.
Good Agents Always Wanted.

SEYMOUR MFG. CO.,

99 CHAMBERS ST., NEW YORK.

7 HANOVER ST.,

BOSTON, MASS.

Give a Wide-open Guarantee.

Mitchell bicycles in six models—including the new Mitchell motor bicycle—are described and illustrated in the 1901 catalogue of the Wisconsin Wheel Works, Racine Junction, Wis. Clear-cut lines distinguish the various machines, and a wide range of options is offered. The Model 50, a road racer scaling but twenty-one pounds, would attract attention almost anywhere for its excellent designing. An unlimited guarantee is a noteworthy feature of the tastefully got up little pamphlet.

Result a Net Loss.

Some English riders claim to have had good results from the use of light racing tires with unprotected sides. Of course, this gives them great resiliency, but tests on this side of the water have shown a loss of durability even greater than the gain in the other respect.

Beginning at Brockton.

The Cable Cycle Co., of Brockton, Mass., is installing new machinery at its factory, and it is said that it will soon begin manufacturing.

WHY BUY New Jersey
Mud mixed with Sulphur
and baked on to Fabric,
when for about the same
price you can buy really
High Grade Tires?

No. 66 Fisk just one-half factory price, and Kangaroo one-half price.

Write for prices before they are closed out.

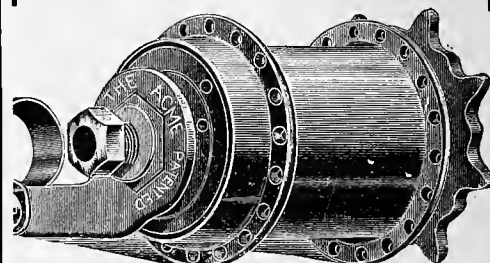
BOSTON CYCLE AND SUNDRY CO.,

J. M. Linscott, Manager,

THE ACME COASTER BRAKE

Adds **FIVE DOLLARS** to the cost of your wheel and **FIVE TIMES** to the real enjoyment of it.

"An automobile or a motor 'bike'
Is a thing that riders all would like
But as 'half a loaf is better than none'
(and the price is high on either one)
An ACME BRAKE will save the day
And allow the rider 'to coast half way.'"

**THE ACME COASTER BRAKE**

Embodies the following original features that have placed it in a class by itself:

Coasts on Ball Bearings.
Brake Automatically Released.
No Side Thrust.
Dust Proof.
Any Size Sprockets. 3 Chain Lines.
Straight Hubs using Regular Spokes.

BOOKLET ON REQUEST.

ACME COASTER BRAKE CO.,
ROCHESTER, N. Y.

New York Office, 99 Chambers Street.
SOLD EVERYWHERE.

THERE'S REAL COMFORT
IN THE REEVES

Ideal Spring Seat Post.

It relieves all jolts and jars, and converts any Bicycle, new or old, into a Cushion Frame. Fits any wheel. Sent prepaid to any address on receipt of \$1.75. Money back after three days' trial if you want it. Send size of present post. D. E. ORVIS & CO., 71 E. Genesee St. Buffalo, N.Y.
Reference, Buffalo Commercial Bank.

Dealers send for Circular and Wholesale Price List.

INDIANA CHAIN. EASIEST RUNNING.
CONSEQUENTLY BEST



Send 26 cents for Fob. \$1.80 per dozen, on card.
INDIANA CHAIN CO., INDIANAPOLIS, IND.

BANGOR'S SCHEDULE

Price of Repairs Rule Lower in the Maine City—The Figures That Obtain.

As the proof of the pudding is said to be in the eating of it, there is no other course possible than to write down repairers' associations a success. From the North, South, East and West comes convincing testimony to their value. Nowhere does a backward step appear to have been taken.

One of the latest associations to take account of stock was the Bangor (Me.) Repairmen's Association, which held its annual meeting recently. The following officers were elected: President, C. L. Chalmers; vice-president, A. B. Purrington; secretary and treasurer, E. H. Dakin.

"The members of the association," says Secretary Dakin, in reply to the Bicycling World's inquiry, "were very much pleased with the working of the organization for the last year, and were unanimous in their vote to keep up the organization. The prices for 1900 were revised somewhat for the present year, and, although lower, will not invite the price cutting by outsiders so much as our previous list."

The new schedule follows:

TIRE REPAIRS.

Punctures, one or two plugs or patches, guaranteed.....	\$.50
Cut or burst reinforced or vulcanized.....	.75 up
Metal base valve in single tube.....	.50
Valve, ordinary, and wired in.....	.35
Valve and stem on double-tube tire.....	.60
Valve stem vulcanized into single tube.....	1.00
Removing old tube, put in new and cement on.....	.50
Putting in tube and lacing up only.....	.35 to .50
Cementing on tire, each.....	.25
Recementing on tire, liquid cement, 15; pair.....	.25
Tire fluid, putting in, each.....	.50

WHEELS.

Plain new rim and put on same.....	\$2.00
Rebuild wheel only, \$1.50; extra spokes.....	1.00
Truing up wheel, each.....	.25 to .50
Spoke, putting in one (1).....	.25
Spokes, putting in two or three.....	.50
Additional spokes, each.....	.05

CHAINS.

Chain, cleaning and oiling.....	\$.25
Link in chain.....	.25
Extra link, each.....	.10
Chain bolt put in.....	.15

FRAMES.

Top or bottom tube put in.....	\$4.00
Top and bottom bar or tube, put in.....	6.00
One rear stay or fork, put in.....	3.00
Two rear stays or forks, put in.....	5.00
Straightening frame.....	.50 to 1.50
New head tube put in.....	3.00
Repairing broken tube.....	\$2.00 to 3.00
Brazing loose joint.....	1.50
Head lug put on.....	2.50
One rear fork end put in.....	2.00

FORKS.

Fork stem put in.....	\$2.00
Repair fork stem.....	1.50
One fork end put on.....	1.00
Two fork ends put on.....	1.50
Fork side put on, one.....	\$1.50 to 2.00
Pair fork sides put on.....	3.00
New fork crown put on.....	3.00
Straightening forks.....	.50 to 1.00

CRANKS.

New crank fitted, each.....	\$1.00
Crank repaired, each.....	1.00
Straightening crank, each.....	.25
Crank key put in, each.....	.25

AXLES.

Crank axle made and fitted....	\$2.50 to \$3.50
Pedal axle made, each.....	1.00
Front or rear axle made, each.....	.50
Converting a one and two piece crank to three pieces.....	\$2.50 to 3.50

DRESS GUARDS.

Guards complete, put on and laced....	\$2.00
Single mud or chain guard put on and laced.....	1.25
Lacing mud and chain guard.....	.75
Lacing mud guard.....	.50
Lacing chain guard.....	.35

MORROW HUB (COASTER-BRAKE).

Furnishing new wheel complete, plain rim.....	\$7.50
New wheel complete, taking old wheel in exchange.....	6.50
Morrow hub and fitting same to old rim.....	6.50
Price of Morrow hub and coaster-brake.....	5.00

PRICE OF TIRES, PUT ON.

Hartford No. 80.....	\$7.50
Hartford No. 77.....	7.50
Hartford No. 70.....	6.00
Hartford Juvenile 26 inch.....	5.00
Hartford Juvenile 24 inch.....	4.50
Morgan & Wright.....	6.00
All unguaranteed tires.....	\$4.00 to 5.00
* Deduct 50 cents per pair from above prices when tires are not "put on."	

MISCELLANEOUS.

Enamelling rims.....	.50 to \$1.50
Enamelling (air drying).....	\$1.50 to 2.50
Enamelling, baked.....	3.00
Decorating, extra.....	.75
Cones and ball races made according to size.....	\$1.00 to 1.50
Handle bar reinforced, brazed and plated.....	1.50
Seat post or handle-bar extension, solid.....	1.00
New plunger brake and put on.....	\$1.50 to 3.00
Cleaning wheel all through.....	1.50
Cleaning chainless bicycle all through.....	2.50
Cleaning wheels fitted with coaster (tire) brake.....	2.00
Cleaning crank-axle bearings.....	.50
Cementing on grips, per pair.....	.20
Crating bicycle and furnish crate.....	.50

RENTAL PRICES.

One month, in advance.....	\$5.00
Two weeks, in advance.....	3.00
One week, in advance.....	2.00
Sundays and holidays, in advance....	1.00
Week day, in advance.....	.75
Half day, lowest charge, in advance....	.50
Tandems, double price.	

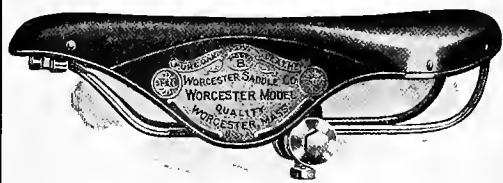
Persons hiring bicycles must make good all repairs caused by accident, misuse or neglect.

Revival in Minneapolis.

Most of the dealers in the central part of town did not have time to go to luncheon yesterday, says the Minneapolis Times of April 3. Minneapolis is cycle mad again, and no mistake. Everybody seems to be inquiring about wheels, and the salesmen yesterday had to attempt the difficult job of talking wheels to half a dozen people at the same time. The warm weather of the last ten days has stirred up the latent enthusiasm, and now the riders will not be satisfied until they have been told that they can have their mounts by the end of the week.



The
Good Things
of
Yesterday
Were Crowded Out
by the
Better Things
of
To-day.



Hence
the
Undoubted Pre-eminence
of the
Persons Saddles.
They are
The Saddles of To-day
and of To-morrow.
They have
crowded out
the Yesterdays.

Persons Mfg. Co.,
Worcester, Mass.

The Week's Patents.

670,957. Crank Hanger for Bicycles. Frederick I. Johnson, Fitchburg, Mass. Filed January 24, 1900. Serial No. 2,606. (No model.)

Claim.—1. The combination with the tubular framework of a bicycle of a plate curved in the arc of a circle and arranged transversely to the frame and provided with prongs turned inwardly, or toward the concave side of said plate, a barrel fitting the concave side of the curved plate and attached thereto and having mortises to receive said prongs.

671,019. Drive Gear for Bicycles. Luther Hansmann, Sparta, Ill. Filed April 18, 1900. Serial No. 13,363. (No model.)

Claim.—1. In drive gear of the character described, an oscillatory driver, a rotary driven element, a segment rack, connected gears carried by the driver and adapted to co-operate with respectively the driven element and the segment rack, a switch located wholly in the plane of the segment rack and consisting of a curved bar pivoted between its ends thereto, and a pin applied to the driver to act jointly with the pivoted switch-bar to effect a shifting of the segment rack, substantially as specified.

671,029. Rocking Horse Tricycle. Robert Piper, Toledo, Ohio. Filed April 10, 1900. Serial No. 12,281. (No model.)

Claim.—In a rocking horse tricycle, the figure body mounted upon the frame, the revoluble rear axle journaled in said frame, wheels thereon adapted to revolve therewith, a driven sprocket keyed upon said rear axle, a driving axle revolubly mounted in the frame, and provided with pedal cranks and pedals, a driving sprocket upon said driving axle, a sprocket chain connecting said driving with said driven sprocket, a crank upon the driving axle, a pitman connecting said crank with the figure body, a steering fork provided with a steering wheel, mounted in the forward part of the frame, a handle bar having a stem extended through a perforation in the forward part of the figure body, and links connecting the lower end of the handle bar stem with the upper end of the steering fork, all combined to operate in the manner specified.

671,030. Bicycle Frame. John Railton, John L. McSpadden and John McDonald, Detroit, Mich. Filed June 16, 1899. Serial No. 720,790. (No model.)

Claim.—In a bicycle, the tube A open at its top, and provided with a partition at its lower end, and with a nipple above the partition, and a hollow seat post, combined with a seat having an opening through its rear end, a hollow piston rod having its upper end curved rearwardly so as to form a handle, and having a piston secured to its lower end, and the rubber tubing E which is adapted to be applied to the nipple when one of the wheels is to be inflated, and to be placed inside of the hollow piston rod when not in use, substantially as shown.

671,049. Bicycle Steering Device. Joseph H. Graham, Allegheny, Pa. Filed February 16, 1900. Serial No. 5,423. (No model.)

Claim.—1. In a bicycle steering device, the combination of a front crossbar connected to the steering head, side bars connected to and extending from the ends of said crossbar rearwardly past the saddle, and a rear crossbar connecting the rear ends of said side bars, the whole constituting a frame, and means whereby the frame is permitted to rock vertically on an axis substantially parallel to the length of the bicycle.

671,053. Velocipede Frame. Emmitt G.

Latta, Friendship, N. Y. Filed June 13, 1900. Serial No. 20,137. (No model.)

Claim.—1. In a velocipede frame, the combination with a crank hanger of a reach composed of front and rear members connected together within the hanger, and an upright frame member extending through the upper side of the hanger and connected to the reach within the hanger, substantially as set forth.

671,295. Luggage Carrier for Bicycles. Ole P. Peterson, Portland, Me., assignor of one-half to Megquier & Jones Company, same place. Filed August 13, 1900. Serial No. 26,698. (No model.)

Claim.—1. In a luggage carrier for bicycles, in combination, rods bent so as to form a horizontal shelf, one of the rods being formed into a loop adapted to encircle the forward part of the head of a bicycle, a detachable hook adapted to encircle the back side of the bicycle head and to be attached to said forwardly extending loop, a hook adapted to encircle one member of the bicycle frame at the under side thereof and to be detachably connected to loops in the end of the frame and means for causing an upward pressure on said hook.

671,320. Mud Guard. James B. Hixon, jr., New York, N. Y. Filed February 21, 1900. Serial No. 6,028. (No model.)

Claim.—1. A mud guard comprising a stay, a support attached thereto composed of a resilient strip extending substantially perpendicularly to the plane of the stay, and a pad or projection secured to the inner face of the support and projecting toward the periphery of a wheel or tire, substantially as described.

671,357. Repair Tool for Elastic Tires. Charles E. Strouse, Montgomery, Pa. Filed January 14, 1901. Serial No. 43,156. (No model.)

Claim.—1. In a tool of the character described, the combination, with a barrel, a piston and a piston rod, of a nozzle secured to one end of the barrel and provided with a beak which extends at an angle to the nozzle and has a flat inner face provided with a vertical row of discharge perforations, and swab holder carried by said beak, substantially as set forth.

671,365. Pneumatic Tire. Adam H. Beck, Washington, D. C., Kate Beck, administratrix of said Adam H. Beck, deceased. Filed November 8, 1899. Serial No. 736,268. (No model.)

Claim.—1. A pneumatic tire having a tread portion of soft rubber and of less width than the tire when inflated, the sides of the tread adjacent to the tire being incurved, thereby to cause the tire at these points to be of substantially the same thickness as the body portion of the tire, and a reinforcing strip secured to the inner side of the exterior surface of the tire, the said strip being thin at the centre of that portion of the tire upon which the rim will bear, and gradually thickening outward to points somewhat removed from those upon which the edges of the rim will bear in use, then somewhat abruptly incurved, forming shoulders, and then gradually diminishing in thickness toward the sides of the tire, thereby to cause the tire, between the shoulders and the tread, to be substantially of the same thickness as the thickest part of the reinforcing strip, substantially as and for the purpose described.

671,375. Carbureter. Edward B. Gallaher, New York, N. Y. Filed July 5, 1900. Serial No. 22,542. (No model.)

Claim.—1. In a carbureter, a chamber hav-

ing an inlet and an outlet for the air or gas to be carbureted, a series of rods arranged in said chamber between its inlet and outlet and means for supplying carbureting liquid to the exterior surfaces of said rods from the upper ends thereof, all in combination substantially as herein described.

671,409. Brake. Henry L. F. Trebert, Syracuse, N. Y. Filed December 30, 1899. Serial No. 742,035. (No model.)

Claim.—1. In a vehicle, the combination of two revoluble members, one being provided with two engaging surfaces and one being movable relatively to the other, said members being provided with substantially concentric engaging faces, means between the substantially concentric engaging faces for locking the revoluble members together, a non-revoluble brake member surrounding a portion of one of the revoluble members and interposed between said two engaging surfaces, and rolling clutch members movable lengthwise of the axis of the revoluble members and engaging the brake member and one of the revoluble members for transmitting substantially equal pressure to said two engaging surfaces in opposite directions substantially lengthwise of the axis of the revoluble members and thereby retarding the revolution of one of said revoluble members, substantially as and for the purpose described.

DESIGNS.

34,322. Member for Combination Tools. Louis P. Talbot and Joseph Talbot, Fall River, Mass. Filed March 1, 1901. Serial No. 49,516. Term of patent, seven years.

Claim.—The design for a member of a combination tool, substantially as herein shown and described.

As to Reach.

The question of reach is most important. A short reach is most uncomfortable when riding, and makes one's knees ache, while too long a stretch, although not apparently so uncomfortable when one first gets on the machine, becomes dangerously so when one has to ride a distance. The saddle becomes hard, then chafes, and finally the rider makes up his mind to change the saddle at the first opportunity, when all the time it is the long stretch that is causing the trouble.

To set the matter at rest and arrive at one's proper reach on a bicycle is a simple matter—so simple that many riders evidently consider it beneath them to resort to such obvious remedies, and prefer to suffer in silence and maintain their high position. For those who prefer comfort and a proper position the formula is reiterated. The rider should be able to place his heel on the pedal when sitting easily in the saddle.

Cyclist Awarded Damages.

At Brooklyn last week the bicycle and the automobile locked horns in legal warfare, and the two wheeled machine won out. Before Justice Dunnell in the Supreme Court the case of William F. Hodges against the New York Electric Vehicle Transportation Company to recover \$10,000 came up for trial, and the jury assessed the damages sustained at \$3,500. The plaintiff on November 7, 1899, was riding a bicycle on Broadway, Manhattan, when he was struck and knocked down by one of the defendant's automobiles. He received a fracture of the left forearm, besides sustaining other injuries about the head and body.

Our nearest Distributing Agent is only a few miles from you. Send for his name.

How to Make Juveniles Pay.

Put them on the floor—show them.

When the Spring flowers begin to make themselves heard in the land, then begin to interest fathers and mothers in the outdoor exercise and enjoyment the child obtains from a good Bicycle.

Exhibit them, suitably placarded, in the window—they will excite the admiration and the envy of the youth.

But most important of all—sell the

**Standard
Of The World
Juvenile,
The Elfin**

—has more good features than all other Juveniles combined—features that will clinch the sale EVERY TIME.

Get the name of our Distributing Agent nearest you—or write for catalog.

**Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.**

Foreign Demand Still Keen.

There was no let-up last week in the activity that has marked the export trade during the last month. Great Britain again topped the manifest, with purchases aggregating more than \$25,000. Germany and France were also liberal buyers, but the feature of the week was the shipments to Russia, valued at some \$3,700. The record in detail, the week closing April 9, follows: Argentine Republic—1 case bicycles, \$18. Antwerp—54 cases bicycles and parts, \$1,314. Brazil—15 cases bicycles and material, \$504. Bremen—1 case bicycles, \$25. British West Indies—86 cases bicycles and material, \$2,502. British Guiana—19 cases bicycles and material, \$552. British East Indies—2 cases bicycles and material, \$267. Cuba—1 case bicycles, \$49. Dutch Guiana—4 cases bicycles and material, \$370. Genoa—11 cases bicycle material, \$305. Havre—123 cases bicycles, \$5,049; 31 cases bicycle material, \$662. Hamburg—142 cases bicycles, \$3,747; 85 cases bicycle material, \$5,108. London—816 cases bicycles, \$8,665; 105 cases bicycle material, \$4,777. Liege—12 cases bicycle material, \$525. Lancaster—3 cases bicycles, \$292. Liverpool—22 cases bicycles, \$695; 18 cases bicycle material, \$562. Moscow—18 cases bicycles, \$1,500. Milan—8 cases bicycle material, \$454. Rotterdam—146 cases bicycles, \$2,477; 9 cases bicycle material, \$369. Southampton—42 cases bicycles, \$4,795; 227 cases bicycle material, \$6,326. Stockholm—56 cases bicycles, \$1,525. St. Petersburg—61 cases bicycles, \$2,170. Uruguay—4 cases bicycles, \$145. Venezuela—2 cases bicycles, \$48. Viborg—10 cases bicycles, \$85.

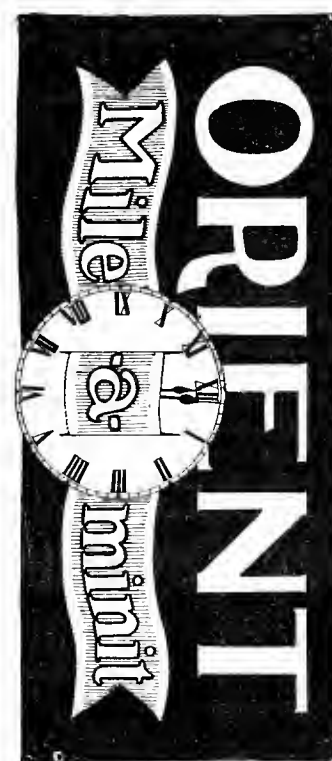
To Rest the Heel.

Many riders of coaster-brake machines find themselves almost unconsciously seeking a resting place for their heels when coasting. What is undoubtedly a good plan is thus described by one rider:

"When coasting, instead of allowing the cranks to remain vertical, place them in a horizontal position; then turn the heel of the foot on the forward pedal inward, till it rests on the end of the screwed pin that fixes the crank to the bracket axle. This gives at once a real rest to both feet, adds no extra weight to the machine, takes weight off the saddle, distributes it more equally over the frame, provides also a firmer seat, the heel becomes at once the fulcrum of 'steadiment,' which locks automatically the feet into the horizontal position, giving such a sense of security that free wheeling becomes more enjoyable than ever, also preventing side slip by reason of the weight being nearer the road."

Fiske Bros., of Waltham, Mass., have removed to the store occupied last year by the Orient branch, and will handle the various Orient models in future.

YOU NEED THIS SURE!



No bicycle is quite its equal, and inasmuch as no demand was quite as large for any one model—the trade recognizes the fact.

It leads the line—an interesting line of sure sellers.

ORIENT CUSHIONED FRAME LEADER
TAILORED ORIENT
ORIENT CHAINLESS
ORIENT MOTOR BICYCLE

and up, up, up, the automobile line to the swell Victoriette.

WALTHAM MFG. CO.,
Waltham, Mass.

Going West?

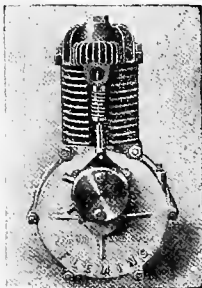
If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***



Certainly, dealers and repairmen can have a sample of THE MAGIC. We find it a pleasure to send samples, for each one brings a new customer where there is a desire for the best. To the Jobber—Your customers would like a sample of THE MAGIC. We will send you some on short notice. Write us for samples and prices. The Magic Repair Tube Co., 250 Larrabee St., Chicago

DON'T EXPERIMENT!



Use the well-known

"Fleming" Motor

on your Motorcycle.

Fleming Motor Vehicle Co.,

93-97 Elizabeth St., New York, U. S. A.

IDEAL ADJUSTABLE BARS AND SADDLE POST.

Made of the best material, and finished and plated in the best possible manner.

Get our prices for 1901.

IDEAL PLATING CO., 3 Appleton St., Boston, Mass.

L. R. HALL

Enameling and Nickeling Co.

ENAMELING, NICKEL-PLATING

and VULCANIZING for the trade.

Carriage Tires
Our Specialty.

4 PORTLAND STREET
BOSTON.

Bicycle and Automobile Directory Ready.

This Directory has just come from the press and will certainly be in big demand. The work is very complete and covers the bicycle and automobile field thoroughly. The list of bicycle dealers and repairers is the most comprehensive that has yet been published. Bicycle manufacturers and makers of parts, fittings, supplies, sundries, etc., corrected up to time of going to press. Considerable space has been devoted to automobile manufacturers and contingent interests, and from the careful manner in which the book has been prepared subscribers are assured of a valuable aid in the transaction of their business. A list of the auto. clubs, owners and riders of the United States is also given.

You should send at once for a copy if you have not already done so. It will prove the best mailing list you have ever used. Price, cloth bound, \$5 in U. S. and Canada; foreign countries, \$6. Paul Mensch & Co., publishers, 92-94 La Salle St., Chicago, Ill. ***

HIGH GRADE

wheels must have the best equipments.

There is nothing that gives more value for the money than the use of the

MORSE TWIN CHAIN ROLLER



NOISELESS IN MUD, WATER OR DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless Rocker Joints. Insist on having the Morse Twin Roller. Fits regular sprockets.

Send for Catalogue and Trade Price to

Morse Chain Co., Trumansburg, N. Y.

HAND AND FOOT PUMPS,

Oilers, Repair Tools,
Valves, Name-plates, etc.

Spelter Solder

Sheet Brass,
Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn.
Depots: 210 Lake St., Chicago.
423 Broome St., New York.

Low Rates to the South.

Excursion tickets at reduced rates are now being sold by the Chicago, Milwaukee & St. Paul Railway to the prominent resorts in the South, including Jacksonville, Fla., Mobile, Ala., New Orleans, La., Savannah, Ga., El Paso, Tex., which are good for return passage at any time prior to June 1st, 1901. Information regarding rates, routes, time, etc., can be obtained on application to any coupon ticket agent of the Chicago, Milwaukee & St. Paul Railway. ***

To Unload 30,000 Nondescripts.

The clean-up of two defunct Chicago factories will result in the throwing on the market of some thirty thousand bicycles at the usual bargain-counter prices. The stock has been purchased by a Chicago-New York department store, and the country is now being scoured for job lot equipment. It is known that three lots of ancient tires of three different brands have already been obtained.

Bought up 6,000 Bars.

By the closing of the house that represented the Columbia-Morgan Handle Bar Co. in New York, the Willis Park Row Cycle Co. acquired a stock of some six thousand of those bars. The price paid, the Willis people naïvely say, will enable them to meet competition.

Last of the Simpson.

Shareholders in the Simpson Chain Co., the exploiter of that famous English production which was to revolutionize chain making, are to receive a trifle more than two cents on the dollar. The concern has just passed through liquidation proceedings.

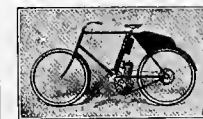
SOLAR LAMPS

The Kind That Satisfy.

MADE BY

THE BADGER BRASS MFG. CO., Kenosha, Wisconsin.

PATEE MOTOR CYCLES, \$200.



No other make of Motor Cycle can maintain a speed anywhere near equal to this wonderful machine. It is light, strong, serviceable and reliable. Will go every time, any time and all the time. No experiment, no plaything, fully guaranteed. Money refunded if not as described. Big trade discount.

count. WRITE US.

PATEE BICYCLE CO., Indianapolis, Ind., U. S. A.

20th Century OIL and GAS
Bicycle, Driving and Automobile

HEAD-LIGHTS.

For sale by all jobbers and dealers,
20th Century brand of Carbide.

Jessop's no Longer Used.

Impelled by a desire to retain what remains of their American trade, William Jessop & Sons, the famous Sheffield steel makers, have decided to erect a plant at Pittsburgh in which to manufacture their different grades of steel.

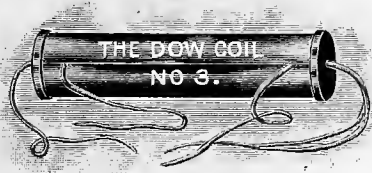
As far as the bicycle trade is concerned this move comes too late, for there are few if any concerns which now use Jessop's steel for bearings. In the middle nineties, however, it was very different.

Then cups and cones made from Jessop's steel were regarded as the proper thing for the best bicycles, and dozens of catalogues asserted that the machines they described were equipped with such. Since that time the improvement in the manufacture of American brands of tool steel, as well as the adoption by the majority of makers of cups and cones made from machinery steel and then case hardened, has brought about a complete change.

Jessop's, Sanderson's and other English steels have lost their hold almost entirely. The former had a great name behind it, and in addition it gave excellent results. Although inclined to err on the side of hardness, it worked well on the lathes and took a beautiful temper. Cups and cones made from Jessop's steel might chip or crack, owing to their having too high a temper, but they seldom or never wore through, as did other steels of less hardness.

Caffery of Claremont is Ready.

Christopher Caffrey, Claremont, N. H., has completed additions to his repair shop which make it one of the best equipped in the State. Steam power is used to drive the machinery, and a dynamo and nickelplating plant have been installed. Automobile, buggy and sulky work is done in addition to bicycle repairing.

THE DOW COIL.

We manufacture all kinds of coils, batteries and spark plugs. For catalogue and price list send to
THE DOW PORTABLE ELECTRIC CO.,
 Offices at
 218 TREMONT ST., BOSTON, MASS.
 Lippincott Building, 12th and Arch Sts., Philadelphia, Pa.
 1135 Broadway, New York.
 190 Washington St., Chicago, Ill.

Those Girls Form Akron!

Those two girls from Akron have made their debut, as usual. Like their sisters who made their curtsies in previous years, these girls are glorious girls, full of life and color.

The Goodrich girl—that is, the B. F. Goodrich Co.'s poster or picture—is rather a pensive maiden, "with ruby lips and golden locks," while the Goodyear girl—that is, the Goodyear Tire and Rubber Co.'s picture—is a plump, roughish, black-haired beauty who looks "full of the devil." Like all debutantes, their corsages are cut low—quite low.

The pictures are of generous size, are not disfigured by advertising matter, and will be appreciated and framed by most of those who are so fortunate as to obtain copies.

Detroit Wants Lamps Used.

Detroit is moving for the passage of a lamp law—for one that will apply not only to bicycles, but to automobiles and rubber-tired carriages as well.

Fontenie and his Tire.

Once more the pneumatic tire is doomed to destruction, Herman Fontenie, of Auburn, N. Y., having patented a new bicycle tire which is to sweep the present type away.

It is designed to replace the pneumatic rubber tire, having all of its good qualities and none of its disadvantages. The tire consists of a light steel rim, to which springs are clamped, and over these a heavy canvas cover is drawn. It is claimed that the tire is lighter than the rubber tire, possesses all its easy-riding properties, and will not get out of order. Thorough tests, it is said, have demonstrated that the tire will outwear a rubber tire. The cost of the new tire is one-half that of a good rubber tire.

Frank L. Cramer, who was one of the big fish in the racing puddle last season, will again ride a Pierce bicycle during the current year—the same make that he rode when the amateur champion.

If we spent

\$1,000,000

in advertising some people would still use cheap and leaky oilers
 Spend a few cents more and get a **"PERFECT"** Pocket Oiler. You will be well repaid.



CUSHMAN & DENISON, Mfrs.,
 240-242 West 23d Street, New York.

DECALCOMANIA
 NAME PLATES
 TRANSFER DECORATIONS

QUICK DELIVERY
 SKETCHES AND SAMPLES SUBMITTED FREE
 SEND FOR CATALOG

THE MEYERCORD CO.
 CHAMBER OF COMMERCE BUILDING
 CHICAGO

If
 You are Interested
 in Automobiles,
THE MOTOR WORLD

Will Interest You.

IT'S NOT LIKE THE OTHER KIND.

It's readable,
 and you can understand what you read.

Published Every Thursday
 at 123-5 Tribune Building, New York.

\$2 per Year.

Specimen Copies Gratis.

NEW DEPARTURE SUNDRIES

SELLING AGENTS—
JOHN H. GRAHAM & CO
 113 CHAMBERS STREET,
 NEW YORK CITY

SECURITY CYCL. METER BELL MASTER BRAKE TWIN HEAD GAS LAMP

SOLE MANUFACTURERS
THE NEW DEPARTURE BELL CO.
 BRISTOL CONN. U.S.A.

NEVER LEAK**STOPS LARGE PUNCTURES.**

This is the only fluid that can be legally used in pneumatic tires. Suits now pending.

BUFFALO SPECIALTY MFG. CO.,
Buffalo, N. Y.

FAST TRAINS*Chicago & North-Western Ry.**The Overland Limited**California in 3 days**The Colorado Special**One night to Denver**The Chicago-Portland Special**Oregon and Washington in 3 days**The North-Western Limited**Electric Lighted—Chicago,
St. Paul and Minneapolis**Duluth and St. Paul Fast Mail**Fast train to head of lakes**The Peninsula Express**Fast time to Marquette
and Copper Country*

NO change of cars. The best of everything. Call on any agent for tickets or address

461 Broadway - New York 435 Vine St., - Cincinnati
601 Ches't St., Philadelphia 507 Smith'ld St., Pittsburg
368 Washington St., Boston 234 Superior St., Cleveland
301 Main St., - Buffalo 17 Campus Martius, Detroit
212 Clark St., - Chicago 2 Kino St., East, Toronto, Ont

The Best Advertising for the
Irish Trade is

**THE
IRISH CYCLIST**

Specimen copy and advertising rates on
application rates to

R. J. MECREDY & SON, Ltd., Proprietors,
49 Middle Abbey St., DUBLIN.

All American wheelmen who desire to keep themselves posted upon matters concerning the cycle in Europe, its trade, mechanics, and sport, should subscribe to

THE CYCLIST**AND BICYCLING AND TRICYCLING TRADES REVIEW.**

The only recognized authority of English trade and manufacture. Sent post free to any part of America for one year, \$3.25. American manufacturers having novelties in machines or sundries to introduce should advertise in

THE CYCLIST.

Terms on application to

ILIFFE SONS & STURMEV, Ltd.,
19 Hertford Street, Coventry, England.

Members of the American Trade visiting England are invited to call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street, Ludgate Circus, London, E. C.

ANY DEALER

CAN
PUT
A**C. C.**ON
YOUR
HUB.

It is not necessary to buy a new hub in order to get the best Coaster on the market. The C. C. Brake has been thoroughly tested and is fully guaranteed. Booklet free. Address CANFIELD BRAKE CO., CORNING, N. Y.



Through Train and Car Service in
effect April 29, 1900.

TWO FAST TRAINS

	"Chicago" Special Via Lake Shore.	"North Shore" Special Via Mich. Cen.
Lv. Boston	9.45 A.M.	2.00 P.M.
Due Albany	4.10 P.M.	7.35 "
" Syracuse	7.55 "	11.40 "
" Rochester	9.40 "	1.30 "
" Buffalo	11.40 "	
" Toledo	5.55 A.M.	
" Detroit		8.15 "
" Chicago	11.50 "	4.00 P.M.

The Finest Pullman Cars will be run on these trains. Tickets and accommodations in sleeping cars for sale at City Office, 366 Washington Street and at South Station.

A. S. HANSON, General Passenger Agent.

GOOD WORK GUARANTEED.

D. PATTINSON,
rear 48 Stanhope St., Boston.
(Opposite former location.)

EXPERT REPAIR WORK
OF ALL KINDS ON
BICYCLES AND AUTOMOBILES.
(Official L. A. W. Repair Shop.)

PATENTS GUARANTEED

Our fee returned if we fail. Particulars and our book "How to Secure a Patent" sent free. Patents secured through us are advertised for sale at our expense. Send sketch and description of your invention and we will tell you free whether or not it is patentable.

CHANDLEE & CHANDLEE
Registered Attorneys.
906 F Street, Northwest,
WASHINGTON, D. C.

Many have made fortunes from simple inventions

The Thorndike

Boylston St. and Park Square,

On the border of the most famous Public Garden in America. **BOSTON.**

G. A. DAMON. J. L. DAMON. J. L. DAMON, Jr.



Via Rockford, Freeport, Dubuque, Independence, Waterloo, Webster City, Fort Dodge, Rockwell City, Denison and Council Bluffs.

**DOUBLE DAILY SERVICE
TO OMAHA**

Buffet-library-smoking cars, sleeping cars, free reclining chair cars, dining cars. Tickets of agents of I. C. R. R. and connecting lines. A. H. HANSON, G. P. A., Chicago.

BOSTON & MAINE R.R.

**LOWEST RATES
FAST TRAIN SERVICE**

BETWEEN

Boston and Chicago,

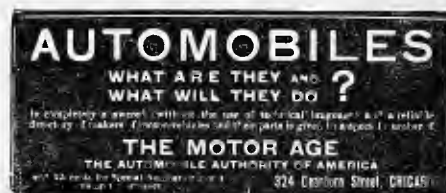
**St. Louis, St. Paul,
Minneapolis**

and all points West, Northwest, Southwest.

Pullman Parlor or Sleeping Cars on all Through trains.

For tickets and information apply at any principal ticket office of the company.

D. J. FLANDERS, Gen'l Pass. & Ticket Agt.
BOSTON.



The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., April 18, 1901.

No. 3

FLINT TESTIFIES

Instances the Rubber Goods in Detailing why and how Combinations are Formed.

In his testimony before the Industrial Commission, in Washington, Charles R. Flint declared that warring prices were the death and not the life of trade, and to avoid them, he said, was one of the great objects of combination. He mentioned other more or less familiar economies, and gave illustrative examples of the savings from centralization.

The economy of "direct distribution" was, perhaps, the greatest of all, but in this care must be taken to avoid lessening the efficiency of the distributing organization. How much can in this way be saved depends upon the goods. The number of travelling men and the amount of advertising may be reduced in case of some articles more than in others, but in everything the economies in these lines have been notable. In the United States Rubber Company, the witness said, the saving in travelling men had been 25 per cent, while in the case of the Rubber Goods Manufacturing Company the saving has been less because of the policy of sustaining the individuality and independence of the constituent concerns. That has been done to secure more efficiency in the selling of goods, and in doing this the company has not seen fit to avail itself of the very best economies of combination.

The advantage which results from "standardizing production" by reducing the number of styles and patterns was spoken of as a distinct economy. The saving by more intelligent granting of credit, the witness said, was enormous. A great combination incurs fewer bad debts. Last year, Mr. Flint said, the United States Rubber Company in a business of \$25,000,000 lost less than \$1,000. The average loss of the separate companies would have amounted to one hundred times as much on the same volume of business, although it was fair to say that business conditions were exceptionally favorable last year.

The plan of organization was next discussed. The witness described his method in the case of the Rubber Goods Manufacturing Company, which was first to form a so-called

blind pool. Parties subscribed \$5,000,000, of which \$3,000,000 were constituted a fund at his disposal to be invested in rubber properties. Simultaneously he created a plan of capitalization, under which a committee of experts made a systematic assessment of all properties. From the total values the liabilities were deducted and preferred stock was issued for the net result. Common stock was issued to represent the value of goodwill, patents and trademarks. This issue of common stock was limited to 142.7 times the amount of the net earnings during the year previous to the organization. This made it a 7 per cent investment, on the earning capacity prior to centralization. The members of the syndicate received for every \$100 of preferred stock \$90 in common, with the limitation that preferred stock should be issued on tangible assets and the common stock limited to a 7 per cent basis. The promoters and bankers of the Rubber Goods Manufacturing Company received the 10 per cent, and whatever might have been made by buying property for cash and taking the stock themselves. The promoters had to take their chances on any corresponding loss they might have met. This would have come out of the 10 per cent.

Overman Trustee Gets Rebate.

After a contest extending over more than a year, an adjustment has been made in the cases of H. H. Bowman, as trustee of the Overman Wheel Co., against the city of Chicopee, Mass.

These cases have to do with the petition for an abatement of taxes on the Overman plant for the years 1898 and 1899. The cases were heard by E. P. Kendrick, who found the cash value of the Overman plant to be \$273,500 in 1898, as against its assessed value of \$301,750 in 1898, and \$392,600, as against \$426,350 in 1899. The company has accordingly been awarded a rebate of \$577.80 on taxes paid in 1898 and \$649.02 on taxes paid in 1899.

Novelty Plant to be Sold.

It is announced that the wood rim plant of the Indiana Novelty Co., at Plymouth, Ind., will be offered for sale on May 22. Manufacturers in the principal cities of the country have been notified, and it is hoped that a purchaser will be found.

A few years ago this plant was the largest in the country, being devoted to the manufacture of single-piece rims.

MINORITY LOSES

Court of Appeals also Rules that Transfer of Tillinghast Patent was Legally Made.

The efforts of the minority stockholders of the Tillinghast Tire Association to have declared invalid the transfer of the Tillinghast patent to the Single Tube Co. have failed.

The suit, legally styled "Booth et al. vs. Dodge et al.," was originally decided in favor of the defendants, and was appealed to the Appellate Division of the Supreme Court of New York, which court last week sustained the lower court and declared the transfer legal and valid.

Makers Will Meet in June.

The Executive Committee of the National Association of Manufacturers has set June 4, 5 and 6 as the dates for the holding of the sixth annual convention of the Association, which will meet in Detroit. These dates, which are somewhat later than the usual time of holding the annual convention, were chosen in order to secure the advantages of a more favorable season in Detroit than would be found in January, during which month the conventions have usually been held heretofore.

These dates were chosen after consultation with the citizens of Detroit. George H. Barbour, of that city, and the Michigan vice president of the association, is in general charge of the arrangements in Detroit.

Cause of Shortage.

The boom in steel has "caught short" a number of makers in the cycle trade, in common with those of other trades. Steel is still hard to obtain, and as a result there is a scarcity of several parts and fittings, and "as specified" orders are returning to vex those who gave and those who took them. It is some time since any one in the trade was forced to decline further orders. But to have facilities for filling them and to be unable to obtain the raw material with which to fill them is what is vulgarly termed "tough luck."

Snuffing out the Lucas Light.

Application has been made to the Connecticut courts for a decree dissolving the Joseph Lucas & Sons Co., a corporation organized to manufacture the Lucas (English) lamps, at Bristol, but which was never a live factor in the business. The business of the concern has been transferred to the New Departure Bell Co.

LEGISLATING IN CONNECTICUT

The Many Bills Introduced in the Legislature Relating to Bicycles.

Not for a number of years has the bicycle received so much attention at the hands of State legislatures as has fallen to its lot this year.

In Connecticut, particularly, the lawmaking machine has had presented to it a most unusual number of measures relating to the bicycle. Motorcycles and automobiles, as well as rubber-tired vehicles not included in these specifications, have also had attention. But so far no very great degree of progress has been made by these bills, and it is, in the case of many of them, more than doubtful whether they will ever receive the approval necessary to their becoming laws.

A list of the different bills referred to, with their introducers, is both timely and interesting, and it is appended herewith:

By Senator Goodrich, concerning the sales of personal property, providing that all contracts for the sale of bicycles must be reported weekly to the chief of police of cities and the selectmen of towns, whose duty it shall be on Monday of each week to notify dealers in such city or town of such contract.

By Donovan, of New Haven, providing that drivers of vehicles shall turn to the right to pass when they meet upon highways, and providing a penalty for failure to obey this law.

By Page, of Nantucket, relating to exemptions, so that the bicycle of any practising physician shall be exempt from attachment.

By Woodruff, of Orange, to regulate the speed of motor vehicles, providing that the speed of all motor vehicles shall not be faster than twelve miles an hour upon country highways and eight miles an hour when upon the highways within the limits of a city; regulating the control of such vehicles and providing a penalty.

By Freeman, of Hartford, amending an act concerning bicycles so that a driver or a rider of any rubber-tired vehicle whose light shall have gone out when absent from home, if riding at a speed not more than six miles an hour and giving signal at frequent intervals, shall not be subject to arrest.

By Mason, of Stonington, amending the bicycle law so that bicycles or other rubber-tired vehicles need not show a light thereon while in use upon lighted streets.

By Hibbard, of Woodstock, amending an act concerning tires on vehicles, so that vehicles having axles of certain size shall be equipped with tires of certain widths on and after July 1, 1905. (This is in the interest of wide tires. "Wide tires make good roads.")

By Gaylord, of Plymouth, concerning injuries upon public highways from bicycles or other vehicles, amending the law so that any person driving a vehicle that shall cause

any person an injury shall stop and give such assistance to the injured person as may be needed, and shall also give his name and address; penalty provided for violation.

By Main, of Orange, providing for the construction of sidepaths for wheels and pedestrians, and licensing certain persons to ride upon certain walks designated by town or city officers.

By Travis, of Torrington, concerning sidepaths for bicycles, providing for the appointment of a board of sidepath commissioners, whose duty it shall be to construct and maintain sidepaths for the use of bicycles, and regulating the use of such paths.

Toledo Starts a Rumor.

Out in Toledo, Ohio, they have commenced to "kill off" the American Bicycle Company. The "Blade," of that city, seems to have inaugurated the process of dissolution in the following story:

"The American Bicycle trust is being dissolved. A careful study of the trade conditions has convinced the management of the trust that, as organized, it is proving disastrous to the trade.

"Accordingly, agents are quietly at work taking steps toward dissolving the trust; all of the plants are to be sold back to their original owners, where it is practical.

"An agent of the trust was in this city one day during the past week seeking local stockholders in the concern, with a view of obtaining their consent to certain features of the proposed dissolving of the trust.

"In speaking to a prominent business man concerning the future of the trust, the agent said:

"It has been demonstrated that the trust cannot manage the bicycle business. Competition develops the bicycle business. Independent concerns, with hustling travelling men, actually created the demand for wheels. When you put these companies out of the business, trade ceases to exist. Moreover, the trust no longer advertises to the extent that the old companies did, and that's what counted."

Facts vs. Flattery.

Under a Washington, D. C., date the Cycling Gazette of last week publishes what purports to be "special correspondence," giving a fulsome eulogy of Cycling Gazette "news" and methods, voiced by some unnamed and anonymous individual.

In the same issue of the Gazette appears this choice item, which may be accepted as an example of its "news" and methods:

"Harry T. Dunn, manager of the Fisk Rubber Company, Chicopee Falls, Mass., is on a business trip to the Pacific Coast, whither he went via New-Orleans, with the intention of returning through Chicago."

As a matter of fact the Bicycling World on February 28 reported Mr. Dunn's departure for the Coast, and on March 28 recorded his return, giving an interesting interview with him, detailing the booming state of trade that prevails out there.

WORCESTER TRIES TO WIGGLE

But Highest Court Holds That its Note Must be Paid.

Efforts on the part of the defunct Worcester Cycle Manufacturing Company to evade the responsibility for its debts have been singularly unsuccessful. Another repulse was met with this week when the New-York Court of Appeals affirmed the decisions of lower courts which had previously negated the contentions of the Worcester Company.

It appears that in an action by J. Burnett Nash on a promissory note for \$3,560 given in part payment of a balance claimed to be due under a contract for the sale of goods, Camille Weidenfeld, the indorser, and the Worcester Cycle Manufacturing Company, the maker, for their answers set up as an affirmative defence that by express agreement the note was subject to all defences existing to an action on the contract, which, among other things, contained a provision that in the event of delay in making deliveries the vendor should "forfeit absolutely, without contest at law, the full value of the order," and a warranty that the goods to be delivered would stand certain tests.

It was also alleged that subsequent to the giving of the note the defendants had discovered that a great part of the materials to be furnished under the contract "were furnished after a great delay and at times later than the time at which they were required to be furnished by the said contract, and that the said materials were of much less value than the value of the materials called for to be furnished under said contract."

The offer by the defendants on the trial to prove these facts was refused, on the ground that the defences pleaded were insufficient in law, and no evidence could be given to support them. A judgment on a verdict then directed for the plaintiff was affirmed by the Appellate Division in this city. The court held, by Justice Rumsey, that the fact that there was delay in the delivery of the goods was immaterial, unless, as a result, the purchasers were damaged by the failure to deliver at the time they agreed, and no such damage being alleged, the defence was entirely insufficient.

Besides, the goods having been accepted, the forfeiture was waived, and to have recouped any damages suffered from the delay the defendants must have pleaded those damages as a counter claim. It was further held that the breach of warranty afforded no defence to an action on the contract, but constituted only a counter claim, which, to have been availed of, should have been pleaded. This decision was unanimously sustained by the Court of Appeals.

HERE'S HIGH COURAGE

On the Lecture Platform an Englishman Actually Praises the Single Tube Tire.

It has really come to this: An Englishman on the lecture platform in the domain of Dunlop, and speaking to men identified with the English cycle trade, has actually declared the single-tube tire to be "the simplest form of pneumatic tube." He said other good things about it, and told his hearers that the English single tube was totally different from the American article, and added a few other impressive truths.

W. H. Paull is the name of the unusual Englishman, and the occasion when his opinions were delivered was a session of the Cycle Engineers' Institute at Birmingham. He read a paper on the comprehensive subject of "Pneumatic Tires." He dealt with the several types, and, reaching the single tube, declared:

"The single-tube tire is the simplest form of pneumatic tire. It is the lightest; it makes no demand upon the rim—sustains it rather—therefore the lightest rims can be used. It is consequently the fastest. Yet single-tube tires hardly exist in this country except for purely racing purposes; and why?

"The answer at once is: They cannot be repaired when punctured.

"But are we as a nation so inferior to our cousins across the Atlantic that we cannot learn to repair a single-tube tire when they can, do and have used and repaired them for years?

"The answer to the conundrum is this: Single-tube tires never have been made in this country as they are made in America. The single-tube tire of this country is a totally different thing from that of America. Although personally in favor of single-tube tires, the author does not wish to decry detachable tires. They have their good points, but it is desired to endeavor to correct a view largely held in this country—a prejudice, in fact, against single-tube tires. On the point of simplicity of construction there can be little question of the superiority of the single tube—it is simplicity itself; it is also cheaper to make. The proper method of manufacture insures a greater durability of the tire. The process of vulcanization is carried out under greater and more evenly distributed pressure than is possible with a detachable tire. The tires are invariably true in every respect."

In the discussion that ensued Mr. Paull's statements were, of course, promptly challenged. Among the opinions delivered was that of an English journalist, who affirmed that he had "never found a good American single-tube tire." He did not state how far he had searched, or that his sight was affected!

Mr. P. L. Renouf thought it a mistake to talk of the "best" tire. The best tire for one man was not the best for every one. In speaking of the internal section of the tire he pointed out that any gas under compression naturally had a tendency to make its containing shell round, so that the internal section of a tire should be round. He thought that the flat rim was not good; the rim should conform to the shape of the tire. He looked to the same form similar to the single tube, but with some arrangement in the bed of the tire to get at the inner tube, to solve the problem of a satisfactory tire. The modern tire was not so well made as some of the older ones. In this connection he exhibited a G. & J. tire which had had continual use for many years, and was apparently in good condition. Wood rims had suffered in popularity in England, he said, mainly through being wrongly drilled.

Mr. Renouf's experience with G. & J. tires confirms that of the *Bicycling World's* editor. In his family, fitted to a lady's bicycle, is a pair of G. & J. tires in use since 1896; although now somewhat disfigured, they still hold air, are pliable, and fit for another season's usage.

Buffalo's Rack Crusade.

At Buffalo, N. Y., the city officials have started a crusade against the ubiquitous cycle rack.

The ordinances of the city permit bicycle racks on the streets, but it is provided that they must contain no advertisements, and must also be placed at the curb in such locations as not to be obstructions to traffic.

Superintendent Hillery has reported to the Commissioners of Public Works that these provisions are being violated, and that some action should be taken relative to the Main street racks in view of the expected heavy traffic this summer.

Under the ordinance the Superintendent of Streets has the power to seize all improper bicycle racks and cart them to the storehouse, to be made into kindling wood. Before taking such action, however, he will warn the owners that the ordinances must be obeyed, so far as Main street is concerned, and if this is not done he will seize the racks.

Recent Incorporations.

Buffalo, N. Y.—Midget Mfg. Co., with \$1,000 capital, to manufacture luggage carriers. Directors: C. E. Wittlauffer, G. B. Johannot and C. H. Brown, all of Buffalo.

Portland, Me.—The Soucy Bicycle Co., with \$100,000 capital, to manufacture and deal in bicycles. The officers are: President, George F. Gould, of Portland; Treasurer, Fred K. Daggett, of Malden, Mass.

Ellsworth, Me.—The Ellsworth Mfg. Co., with \$10,000 capital stock, \$200 paid in, to make and deal in automobiles, bicycles and carriages of all kinds. The officers are: President, L. F. Giles; Treasurer, H. C. Stratton.

AS TO OILING

Comparisons of the Old Way and the New Show the Improvements Effectuated.

Another rider at about this same time had an entirely different experience. His machine was fitted with cone bearings throughout, excepting the large wheel. The former required a great deal of oiling, and whenever a long ride was taken several repetitions of the operation were called for. On one occasion the usual precautions were neglected, and the consequence was that the rear wheel bearing heated and finally stuck, so much had the two pieces of metal expanded. The only remedy was to wait for the parts to cool and then to flood them with oil.

With the great improvement in the oil containing properties of ball bearings it has come about that oiling is now required much less frequently than formerly. The natural result is that riders go to the other extreme and fail to oil often enough. Because they are told that the machine will run a month or a number of months without requiring any relubrication, they take it for granted that this period can be extended without any damage resulting.

Consequently, they continue to use the machine long after the bearings have begun to get dry. No evil results have so far attended this slighting of the instructions given them, they say, and they become curious to see how long it will be before they are called on to pay the penalty. So they continue to use the machine until the bearings become perfectly dry.

It is hardly necessary to say that this is an abuse that should not be permitted to exist. It is possible, as some experimenters contend, that ball bearings will run when perfectly dry. But it is very certain that they will run with less friction and less danger of getting out of order, if properly lubricated, and there is really no use in taking any risks in the matter.

The beautiful mean is the one to observe in this case, as in so many others. Find out how often your bearings should be oiled, and then never fail to do it at the proper time.

In the early days of cycling the oil can and the wrench were the indispensable companions of all riders. To venture on a run without them, unless there were others in the party, was considered the height of foolhardiness. It was a red letter day when one or both were not required.

The writer well remembers that the makers of his first bicycle enjoined its riders to make frequent use of the oil can. "Oil each bearing every time the machine is used," was the admonition contained in the catalogue.

The injunction was taken literally. Each time the machine was used a liberal supply of oil was squirted in the bearings, and it made no difference whether, as not infrequently happened, this was done two or three times a day; the oiling was proceeded with just the same. The result was that the bearings were filled to overflowing, and oil dripped from every oil hole, attracting dust and playing hob generally.



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Such a Quality of Goods
as Will Give the Very
Best Service.

OUR NEW BOOKLET, BEAUTIFULLY ILLUSTRATED IN COLORS

Will Be Delivered To You Prepaid

if you send us your name and address with this advertisement.

You will be as pleased with this new booklet as
everyone is with a pair of HARTFORD TIRES.

HARTFORD TIRES

MAKE SATISFIED BUYERS.

They Retain Old Customers and Make New Ones.

THE HARTFORD RUBBER WORKS COMPANY, Hartford, Conn., U. S. A.





Fisk Tires

Fisk Tires

contain all the virtues made possible by the use of pure rubber, faultless fabric, skilled workmanship and an A to Z knowledge of the tire business.

No matter what sort of Tire you desire—whether for Bicycle, Motorcycle, Carriage or Automobile, you cannot afford to overlook The Fisk.

A Tire that has made a name and fame for itself in a few short seasons.
True merit is the secret.
Are you looking for an ever-satisfactory tire?

FISK RUBBER COMPANY, Chicopee Falls, Mass.

BRANCHES: SPRINGFIELD, NEW YORK, 99 Chambers St., SYRACUSE, BUFFALO, DETROIT,
CHICAGO, 36 Dearborn St., SAN FRANCISCO, 159 Montgomery St.

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THE BICYCLING WORLD

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and MOTORCYCLE REVIEW

In which is Incorporated
"The Wheel" and the "American Cyclist."

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To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, APRIL 18, 1901.

To Prevent Price Cutting.

It does seem, and has always seemed, that where there's the will there's a way (or several ways) of preventing price cutting, or of stopping it when it is attempted.

In bringing a Buffalo jobber into court for violating his signed agreement to maintain a given price on Morrow coaster-brakes the Eclipse Mfg. Co., as we stated at the time, performed a service the material and moral effect of which is above price.

In giving the action the mention and the prominence that such news deserves, and in not making it merely a laudatory "trade puff" of the Eclipse Mfg. Co., as was done by other papers, the Bicycling World expressed the hope that the example would inspire others in the trade to "go and do likewise." Our urging has apparently fallen on fertile ground. We understand on unquestionable authority that other manufacturers have placed themselves in touch with the Eclipse people, and that a united effort to check the price cutter is in contemplation.

We earnestly hope the movement will not prove abortive. If the experience of the past taught anything, it taught the cycle trade the widespread evil, the absolute disastrousness of price cutting. If the experience is worth anything—and there cannot be two minds on the point—and if the cycle trade is to be conducted on a firmer and better basis, it is time a serious effort was made to combat the evil that caused such mischief in previous years.

On the face of things, it does seem that when a man puts his signature to a paper agreeing to maintain a given price he can be legally held to it and be made to suffer the consequences of violation.

Thousands of such documents have been executed in the past, but if, previous to the Eclipse action, any one in the cycle trade ever made a serious effort to enforce the terms of such agreement, it cannot now be recalled. Of course, agencies have been cancelled and threats made; but the effect has been too mild and too circumscribed to be of wide or lasting benefit. Too often price cuttings have been winked at, if, indeed, they have not been actually aided and abetted. Too many manufacturers concern and have concerned themselves not at all about their goods once they are off their hands and their bills are paid, contracts and agreements notwithstanding.

Too many of them take refuge under that cloak for the weak and the unwilling, Competition. They can say little or do nothing, "because of competition." "Competition" covers all sins of omission and commission.

But, going outside the cycle trade, it is possible to find numerous instances of stern and unrelenting maintenance of price on articles which are in more general use than cycles, or cycle accessories, and in which competition is fiercer than the cycle trade has ever known. Take shoes, for instance. It would seem that on nothing so very common could a price be upheld. Yet this very week a New York department store—mark it, a department store, not a country agency or city jobbing or hardware establishment—changed hands; the new owners promptly and prominently advertise a 40 per cent cut on all goods in stock except shoes. The manufacturers of these (the Sorosis) shoes, they add, "do not permit their price to be changed." Take gloves! Surely there is no lack of competition in those wares. But there are not two dealers who dare sell the Fownes glove at different prices. There are cameras—a superabundance of them. But,

despite the fact, the price of Kodaks and of Kodak films never vary a penny's worth. Again, there are carpet sweepers. They are to be had at various prices, but the price of the Bissell sweeper is ever the same—one price to every one everywhere; and the head of the Bissell business is a "poor, weak woman," too!

Instances of the sort might be multiplied but these will suffice. They demonstrate conclusively that it is possible to maintain one's price when one so wills it, competition and overproduction notwithstanding.

And is there a merchant anywhere who does not admire and respect the manufacturer who runs up his standard and fights for it without fear and without favor? Is there a merchant anywhere who will not the more readily deal with the manufacturer whose price he knows is fixed and invariable, and who will defend it come what may? Is there a merchant anywhere who will not the more readily deal with the maker who is not Janus-faced—who, while urging price maintenance to one section of the trade, sells to its greatest enemy, say, for instance, the "catalog" or "mail-order" houses, at unlicensed prices that permit these houses to cut into the very vitals of the legitimate dealer?

The cycle trade is not free of the Janus-faced; it still possesses a particularly large one, but the number has been greatly reduced during late years, and if the reputable manufacturers really jealous of their price and reputation will but get together, or at least emulate the backbone and determination displayed by the Eclipse Mfg. Co., the price cutter must be forced into the background, and a better, cleaner, more confident and in every way more wholesome business result.

Where we Fall Behind.

Has a new race of men been developed on this side of the Atlantic? was the mental question asked by an English investigator who recently came to this country in the interests of the London Times to study our methods of manufacture.

His investigations were confined mainly to the machinery field. As a result of them he was forced to admit that while no new race has come to the fore the wonderful results produced in the American factories were impossible of duplication by any other operatives in the world.

In the forefront of this wonderful industrial progress stands the manufacturer of bicycles. By processes no less marvellous than

simple he is enabled to turn out machines of first quality in practically unlimited quantities at prices which almost defy competition.

Why, then, it may be asked, is it that the American bicycle manufacturer does not dominate the world? Why does he not completely outdistance rivals, in all non-producing countries at least?

It may be replied that he does still lead, and has for years past, in exports; likewise that he probably will continue to do so in the future.

All this can be granted, yet the explanation is not complete. The lead held by the American bicycle at the factory is reduced to inconsiderable proportions at the point of marketing. Where and how is this loss incurred?

The answer is a simple one, and is touched upon by the investigator referred to, in common with many other observers of our methods.

In a nutshell, our genius for manufacturing is out of all proportion to our ability to market.

When we leave our own borders and pass into the domain of other powers we meet with a check at the outset. In essaying to compete with rival merchants the American finds that he is on strange ground, while they are to the manner born. With a thorough knowledge of all the ins and outs of their chosen field they possess advantages which go far to counterbalance those possessed initially by the purveyor of the American machines.

It is in this field that the American manufacturer lags perceptibly. He makes mistakes in choosing his instruments abroad, or if he enters the field himself he frequently throws away his advantages, meets with little if any success, and puts the blame anywhere rather than where it belongs.

In the years since the American bicycle become a factor in foreign markets progress has, of course, been made in the direction of improving our selling methods.

But even now there is much to be done before we can place ourselves on an equality with foreign merchants.

That the improvement will continue, however, is an almost foregone conclusion; for the prize is too tempting to be lightly regarded or to be permitted to slip from our grasp.

Advice and its Shortcomings.

There is never any lack of advice offered to purchasers of bicycles about this time of the year. It does not appear to make very

much difference whether they are novices or experienced riders; the advice is really for them just the same, especially in the columns of the daily papers.

Much of this is naturally very poor stuff, written with insufficient knowledge of the subject, or none at all.

Consequently it is of little use to that comparatively small number of purchasers who really need advice. They are left to grope in the dark, unless they have the good fortune to reckon among their friends or acquaintances some one who is really posted on the subject.

As to the majority of buyers, they long ago cut their eye teeth and are quite competent to make a proper selection. It is but rarely that they come to a decision without having given the matter careful thought. Consequently they think they have done the best thing, which is, after all, next to having done it.

Nowadays price enters into the matter even more than it did a few years ago. But it does so with an important difference. Formerly it was almost the rule to choose the lowest priced machines, with little or no regard to their quality, make or reputation. Now the buyer sets out to get the best machine that can be had at a certain price, be that price low or high.

The change is a very welcome one. As a result of it there is a parity between the quality the maker puts in a machine and the price it will fetch.

Out With the Fraud!

"Dr. Mary Easton" has made "her" reappearance.

We call the special attention of R. Lindsay Coleman and Theodore F. Merseles to the fact; as the two men who are probably most responsible for acts involving the American Bicycle Co., it should interest them.

This so-called "doctress" does not exist; she is myth, pure and simple, and her endorsement of the bicycles made by the American Bicycle Co. is an unadulterated fake, as contemptible as it is unnecessary.

The Bicycling World ran down the fake when it appeared about this time last year, and traced it close to the A. B. C. advertising department. At that time the "doctress," after recommending A. B. C. bicycles, advised women never to talk while awheel "as it congested their heads." "She" also advised plunge baths after a ride and avowed that failure to clean a bicycle was a sure

sign of over exertion. "Her" advice contained other harmful drivel of this sort. This year, it is not quite so bad, but it is bad enough, and more than all there is no one connected with the A. B. C. who can plead that they did not or do not know that "Dr. Easton" and "her" endorsement are fakes, or, in plain English, frauds.

We mention Messrs. Coleman and Merseles by name because they generally are credited with being men of honor. We lay the fraud at their doors. It is for them to say whether their honor is such that they can countenance it.

For ourselves, we cannot see that the interests of the bicycle require or demand. or are served by resort to fakery and fraud.

The Germans are "getting action" of the right sort. Last week we published the report of the arrest and conviction of a Hamburg auctioneer for advertising and crying a cheap American bicycle as a "best on earth." This week's mails bring the story of the arrest of a Darmstadt dealer for advertising \$30 and \$35 bicycles as being unsurpassed by any bicycle at any price. As he could not substantiate his assertion, the court condemned the culprit "to pay a heavy fine for intention to defraud." The remedy is drastic, but it is wholesome.

Minneapolis is described as "cycle mad again"—so "mad" that a local dealer is quoted as saying that a woman recently offered him her wedding ring in exchange for a bicycle. It may or may not have to do with this state of affairs, but it is suggestive that the two Minneapolis dailies, the Tribune and the Times, conduct the most readable and intelligent "cycling columns" that are found anywhere. The local dealers are supporting the papers admirably, too. Their Sunday issues contain the well-displayed advertisements of some forty dealers.

It is doubtful if even J. K. Starley can resuscitate the long-dead controversy between the crank and the lever. When the Star bicycle dropped to the rear and then fell out of the race entirely, definite and, in all probability, final judgment was pronounced. The crank best serves the purpose of the man who must necessarily furnish the power to drive the bicycle, and it does not need the pronouncement against the lever of the maker of the bicycle which set the fashion to the world to convince any one that it is really dead.

THE TALK OF PARIS

Motocycles vs. Voiturettes—The Events at Nice—Motocyclist Mulcted \$3000.

Paris, April 1.—Some clever people have got it into their heads that the motorcycle is doomed. They reckon that this type of machine is a makeshift instrument at the best and that when the public see that they can ride more comfortably in a small carriage they will give up the motorcycle for the vehicle. But things have not got to this stage yet, and I don't think they will for a long while to come.

Apart from the question of cost, which is all in favor of the motorcycle, and will continue to bring it within reach of a big class of customers who cannot afford carriages, there is a good deal of difficulty about designing and constructing a reliable and durable voiturette. The troubles of the engineer increase with the diminishing weight of the carriage. It is easy enough to build voiturettes that will run, and some of them are proving very serviceable vehicles, but the buyer is not disposed to part with his money unless he knows that the carriage will last.

On this subject our knowledge is at the moment very limited. Voiturettes are, comparatively speaking, a recent innovation, and it is only possible to get a satisfactory reply when they have been put to a year's hard work. Whether the small high speed motor and light mechanism as at present constructed will stand the strain is a question that can only be tested by actual experience.

Until then the motorcycle must continue to more than hold its own among the general public. It has now had several years' hard work and has proved itself to be economical and trustworthy. The makers themselves don't trouble themselves about possible competition from the voiturette. They are simply turning them out like the proverbial hot cakes and are quite content to know that so long as they give satisfaction to customers they can depend upon doing a steadily increasing business.

That the trade in motorcycles is growing there is no shadow of doubt. We have only to look at the returns of the inland revenue department as to the number of motor machines declared for taxation to see the popularity of bicycles, tricycles and quadricycles propelled by mechanical means. In 1900 the number upon which taxes were paid was 11,252. This number does not look very big beside the 976,000 pedal cycles in use in this country, but still, if one works out the ground that would be covered by the motorcycles if they were brought together you would get a pretty good idea of the wonderful way in which the new indus-

try has been developing during the past two or three years.

The only retrograde change that has come over motocycling is the decline of racing. In the early days of the pastime makers had to do something to foster an interest in the new machine, and this could only be done by instituting a comparison between the speed qualities of the motorcycle and the pedal driven bicycle. The novelty of this class of racing, which was organized principally for the makers, attracted a considerable number of private owners who did not hesitate to compete with the professionals employed by the manufacturers because they all had practically the same types of machines, and the results depended entirely upon skill in manipulating the tricycles. When, however, makers began to turn out special racing machines and the professionals were supplied with tricycles in which the $2\frac{1}{4}$ horse power motor was replaced by big engines of four and six horsepower the "amateur" tricyclist, as he is understood in France—that is to say, the man who rides on his own account against any class of competitors, whether they be professionals or not—retired and left the field free to less than a dozen men representing the different motorcycle firms. Nearly all the races are therefore now confined to a small number of professional cyclists, but if there are not many of them, there is no lack of quality, and with their high powered machines they are able to do some remarkable performances.

Down at Nice the motocyclists have been taking part in races held there and entered in the events for racing and touring vehicles which, so far as the motocyclists were concerned, were equivalent to the old classification of professional and amateur. There were six tricycles in the big race of 393 kilometres, four of them De Dion tricycles, one a Perfecta with a Soncin motor, and the other a Gladiator with an Aster motor. The course was an extremely difficult one over the Esterel range and the going was as bad as it was possible to be, for the heavy rains had softened the roads to such an extent that it was in some cases extremely dangerous to drive at top speed. The Soncin representative, Béconnais, was only able to get to the top of the steep and winding Esterel gradient after almost superhuman efforts. Time after time he made a dash at the mountain path and got stuck a few hundred yards up. He returned again and again to get momentum to take him up, but he had to rely in the end upon the help of friends, among whom were Baron de Dietrich and other aristocratic automobilists who took off their coats and pushed him from behind. Béconnais got over the hill, but through his motor gripping he did not finish the course. Another unfortunate was Caste, who had a bad spill on the Esterel hill. He was knocked about a little, though not seriously, but his machine was too much damaged to continue. Demester on his

Gladiator tricycle covered the distance in 6:54:56, and the others who finished were Gleize, Osmont and Bardin. Among the amateurs only two were able to get over the trying course—Cornier, on a De Dion tricycle, and Bensa.

In the climbing race on the $15\frac{1}{2}$ kilometre up grade from Nice to La Turbie Béconnais did the best performance by covering the distance on his Perfecta-Soncin tricycle in 17:21, beating the previous record by more than two minutes. In the mile competition on the Promenade des Anglais, Osmont, with a De Dion tricycle, did the standing mile in 1:22 3-5 and the flying kilometre in 42 2-5 seconds, but in a subsequent record breaking attempt Béconnais reduced these times to 1:12 and 39 1-5 seconds, respectively. Bouquet, on a Werner bicycle, covered the mile in 1:56 3-5 and the flying kilometre in 1:08. These are remarkable times, and show to what extent the motorcycle has been improved as a speed machine, but it must not be overlooked that in these record breaking attempts the competitors were helped by a strong wind blowing astern.

The magistrates here are pretty rough on motocyclists who have the misfortune to knock down people and injure them. Last year there was a big race when the competitors started in the Forest of Saint Germain, where you might suppose they would be free from overcrowding, but, as it was a big thing, people went there in crowds and the road was lined with spectators. After the first lot of motocyclists had been sent off the view was obscured by the dust, and in trying to pass one another two of the competitors collided and capsized, the tricycles going off at a tangent among the on-lookers. Unfortunately the wife of a deputy happened to be there, and she was badly knocked about. The fact of the good lady's husband being a deputy of course increased the enormity of the offence. He claimed heavy damages, and after a hearing of some months the case has just come to an end. The motocyclist, Dorel, has been condemned to a month's imprisonment, with the benefit of the Berenger law; that is to say, he will not serve his time if he is not convicted again within a certain time, and he is fined \$20 and condemned to pay damages amounting to \$3,000 to the deputy and various other sums to other complainants. MM. De Dion et Bouton, as the employers of Dorel, whose machine he was riding, are responsible for the payment of the damages.

Those Heavenly Hartfords!

In their beautifully illustrated catalog—illustrated in colors both inside and out—the Hartford Rubber Works make several "word plays" that are both clever and "catchy." Thus, they term the Hartford single tube a "speaking tube"—one that "tells its own story—in all languages—in all countries—in all seasons." Again, they bid all those who are tired of other tires to turn to the "heavenly Hartfords," thereby going the "best on earth" considerably more than one better.

TRADE IN INDIA

Peculiar Conditions That Prevail—The Natives as Buyers and Beggars.

In India a large trade is done in bicycles of every make and description, says a correspondent of "The Cyclist." For, in addition to the demand from European residents and visitors, the native is every year adding to his English proclivities by adopting the motive power of the West.

However, in this connection it may be observed that, though a comparatively large volume of business both in new and second-hand machines forms part of India's commercial transactions, the money is not always safe. The Oriental, be he prince or peasant, has a rooted aversion to paying his debts, though his partiality for giving orders is unbounded; and the Anglo-Indian is occasionally of much the same inclination. The raffle of a bicycle—a popular form of Indian speculation—attracts many ticket purchasers, and the happy Hindoo or merry Mahometan who succeeds in securing (at the outlay of a rupee) a serviceable bicycle is in receipt of the envy, hatred, malice or admiration of his Aryan brethren.

Bicycles may also be hired. Many of the bicycle firms in Calcutta, Bombay, Lahore, Lucknow, Allahabad, Cawnpore, Poonah and Madras make as much as, if not more than, in this way might result from direct sales. The prospective native purchaser (who never does anything in a hurry) will hire a bicycle while turning over in (what passes for) his mind the pros and cons in connection with the purchasing outright of the produce of Birmingham or Japan.

It may be mentioned that in India the cobbler refrains from sticking to his last. Bicycles are vended by the grocer, photographer, wine merchant and toy shop proprietor. The linen draper and haberdasher also avail themselves of a look in, much to the disgust and indignation of the legitimate vender. The jewellers and watchmakers in Hindostan consider themselves entitled to stock various makes of the "devil-on-wheels" (as the villagers named the first bicycle they saw).

Bicycle sports and races amongst native wheelmen are not in request. But with the advance of civilization they may become popular, say, one hundred years after the bicycle in England has been considered obsolete. The bicycle ridden by the Oriental is not invariably blest with a bell. To shout "hi" or "jow" (out of the way) is less costly.

It sometimes happens that the Aryan will adopt strange devices with a view to obtaining the coveted bicycle which fate, in the shape of an empty purse, denies him. As a begging letter writer the Oriental would-be bicyclist has no equal. Thus:

"Calcutta, Number 5.

"Sookyear's Lane, November second.

"Honourable sir,—This poor one, who is passed B. A., desires bisicle, but where to obtain or how he knows not, having no

dammned rupees, nor even pice, he beseeches your Honour to advance him rupees fifty that he may buy one of second-hand, and for such a act of loving kindness and mercy he will as in duty bound ever pray, world without end, amen, for these and all other mercies now, he is laugh stocked of all neighbours for being without the velocipede which is desideratum est, and should your Honour grant this poor one's prayer he will always pray for your greatness and past and future progeny.

Lala Dass, student."

How Geer Gets There.

Harry R. Geer, of St. Louis, Mo., is a dealer who appears to be alive to an opportunity when it presents itself, and who seems to be throwing a deal of energy into his doings.

The recent local election in St. Louis supplied an instance of the sort. Geer saw the chance to advertise himself and his business, and promptly seized it. He had printed and distributed thousands of small cards bearing his portrait and this urging:

○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○
○
○ VOTE FOR ○
○ HARRY R. GEER, ○
○ REGULAR NOMINEE ○
○ FOR THE MOST POPULAR BICYCLE DEALER. ○
○ 1017 PINE STREET. ○
○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○

It is a clever idea, that may be emulated by any one. It is not even necessary that a local election be waited for; indeed, cards of the sort circulated out of season are likely to attract more attention and cause more comment when a heated campaign is not under way.

Geer is also booming motorcycles in good fashion. The raffle of a tricycle is one means he is employing of arousing interest.

Taylor Takes Arend's Measure.

Major Taylor has begun scoring abroad. On Wednesday last at Berlin he met and defeated Willie Arend, the German champion, and, then doubling up with him, the pair accounted for the tandem race in good style.

The first news of Major Taylor's victory over Arend, the German sprinter, received in this country was by the Iver Johnson's Arms and Cycle Works, of Fitchburg, Mass. Within an hour of the finish of the race they received the following cablegram from Taylor: "Won open and tandem races today," signed "Major."

It is probably not generally known that Taylor feared to meet Arend as much, if not more, than Jacquelin, but this fact he confided to his close friends before leaving for Europe. He is booked to meet Jacquelin on May 16.

Taylor, of course, is riding the Iver Johnson racer in Europe, and will continue to do so, as he is under contract with the Iver Johnson concern until 1902.

"STICTION" AND FRICTION

How the Tire Must Avoid one and yet Provide the Other.

To the average rider the pneumatic tire is a very simple thing. He knows, in a vague way, that it performs certain very important functions, but he accepts it in a matter of fact way that has in it very little of understanding or appreciation. When it is remembered, however, that the still greater marvels of the bicycle are also regarded as a matter of course, this is not altogether surprising.

The tire must not only be made to render rolling friction the least possible, says a writer who has given the subject much study, but it must also be capable of transmitting the power from the rim to the ground, and this latter is a most important function.

A tire might be made very elastic, and offering a comparatively small resistance to rolling friction, and yet its capacity for transmitting power to the ground be very indifferent indeed. A tire on a driving wheel should fulfil a very curious set of conditions. In the first place, while there should be no "stiction" between the tire and the ground, yet the "friction" should be as great as possible.

What I mean is, the tire should grip the ground as closely as possible, lest circumferential slipping take place, but it should not stick to the road surface. These conditions seem almost antagonistic, yet the more perfect the tire, the closer the fulfilment. Again, the tire should be as radially elastic as possible; that is, it should as far as can be yield back instantly the work which is put into it; with a perfectly elastic tire there would be no rolling resistance.

In the last place, it should be capable of transmitting the power from the rim to the road surface with the minimum of stretch. In other words, to fulfil the third condition the tire should be perfectly elastic in the direction radiating from the centre, so as not to affect rolling resistance, and should in no wise yield in a circumferential direction, i. e., should not spread longitudinally along the ground in order that the last condition may be fulfilled.

The introduction of the tangential fabric worked a marvellous change in increasing the circumferential stiffness of the tire, while having practically no effect on the radial elasticity. The tangential fabric was the last great landmark in the improvement of the tire, and its object was to increase the efficiency of the driving train of connections.

Wedding Ring for a Wheel.

"It beats all creation to what lengths people will go in order to get a wheel," the Minneapolis Tribune quotes a local dealer as saying. "Actually, a woman came in here the other day and wanted to pawn her wedding ring—and you know what that is to a woman—in order to get a wheel."

REPAIRER'S REQUIREMENTS

What is Necessary to Make a Repair Business Successful—Its Limitations and Needs—One Tradesman's System.

Great changes have taken place in the bicycle repair business in the last dozen years—changes almost equal to those which have revolutionized the business in its entirety.

In the early days of the trade repairing was looked upon as a great deal of a nuisance. Its necessity did not lessen this feeling; in fact, it rather increased it. The volume of repairing was small, the prices charged did not average enough to make this branch of the business very remunerative, and there was continual trouble over guarantees. Consequently the larger dealers, while finding it necessary to operate a repair shop, yet did not do so with the best grace possible.

THE FIRST REPAIR SHOPS.

The repair shop was in almost every case an adjunct to the bicycle store. Some independent shops existed, but they were very few indeed, and run chiefly by ex-dealers. Small as their number was, they had rather a hard time of it, their owners rarely doing more than eke out a bare living.

But with the expansion of the trade repair shops multiplied rapidly. For a considerable time they were conducted in conjunction with retail stores, but the day finally came when this could no longer be said. Dealers forced out of the retail trade by misfortunes or other causes, repairmen who deemed the time a fitting one for starting out on their own account, mechanics both from the bicycle factories and from machine shops who spread their wings to catch the favoring winds—all flocked to the field which seemed to spread so invitingly before them.

WIDENING OF THE FIELD.

In the years which have succeeded the slump this tendency has been emphasized. At the present time it is true that almost all retail stores have repair shops of some kind attached to them; but it is doubtful whether the amount of repairing done by them is not exceeded by that which falls to the lot of outside shops.

Where formerly a repair shop was an adjunct to a retail store, and quite subordinated to it, it is now entirely separate in at least an equal number of cases; and were it not for the fact that many repairers do a little retailing to help out, the preponderance would be even greater.

But whether the repair shop belongs to the retail store or is entirely independent of it, the desirability, even the necessity, of conducting it on a profitable basis, is equally great. Nor is there any difference in the methods which should be adopted to bring about this desirable result.

These are, after all, very simple. The nature

of the business and its extent do not warrant the piling up of any considerable overhead charges.

The system of bookkeeping must be simple and inexpensive, kept fully up to date, and yet affording a ready means for checking up everything so as to keep tab on what is being done. The overseeing—whether this be intrusted to a working foreman or to the office help—must be intelligent and all-seeing, yet entirely subordinated to the matter of getting out the work. Any considerable expenditure for this purpose would defeat its object by eating up the profits, which, at the best, are comparatively small.

TEST OF SUCCESS.

It is a too common belief that the supreme test of the success or failure of a repair shop is the amount of work that comes in. If the shop is piled full of work and the capacity of the force is overtaxed the business must be a profitable one, it is usually argued; while if the workmen are able to handle all jobs cleanly and expeditiously, sometimes actually waiting for new ones to come in, it is argued that there must be a loss.

Neither contention will stand examination as a hard-and-fast rule. The first-mentioned condition of affairs may prevail and yet money be lost week after week and month after month. On the other hand, the apparent slackness resulting in the second case may be turned to good account, and a creditable showing be made notwithstanding. It all depends on the management of the business, and in perhaps a majority of cases losses result as a consequence of the laches of the controlling mind.

While minor differences in the management of a repair business may be considerable, the fundamentals are, to all intents and purposes, the same in each case.

It is not a difficult matter, therefore, to lay down a few simple rules applicable to nearly all repair shops, and no better way of doing this could be found than to describe the methods employed by one large and successful repairer, and to institute some comparisons between them and those made use of by others. The *Bicycling World* representative has had unusual opportunities for closely observing the plan referred to.

REPAIR SHOP SEPARATE.

Although this repairer—who will for convenience sake be designated as Blank—is a dealer as well, he completely divorces the two ends of his business. Consequently he knows exactly what the repair shop is doing, and it is for all practical purposes the same as a separate or independent shop.

In former years Blank, in common with many other repairers, did the bulk of his business on the hour-charge system; that is, he charged so much per hour for the workman's time, and added the retail prices of all parts and materials used. But of late the fixed-charge system has been gaining ground, and is now used almost to the exclusion of the old method. Still, the latter is not entirely abrogated, but is made use of whenever the customer desires or the nature

of the repair renders it necessary or desirable.

This being so, it is easy to see that the fixing of prices on jobs brought in is a task of great importance. An estimate of the cost is made, and to this is added a sum for profit and contingencies. If this addition is too liberal the total figure is, of course, too high, and the customer is either dissatisfied or lost altogether. If it is too low the repairer is the one to suffer. Consequently he soon learned to estimate correctly, and from these estimates the various repair associations throughout the country based the prices which appear in their schedules. Consequently little estimating is now required, and matters are very much simplified.

When a repair job is brought in to Blank he takes it, fills out a repair tag with the owner's name, address, etc., the exact nature of the repairs to be made, and puts on it a symbol which denotes whether the work is to be done for a fixed price or on time; in the former case the price quoted is also carefully noted. The latter may be done in cipher if it is deemed undesirable for the workman to know the figure. The time set for the work to be done is also noted on the card.

ORDER OF PRECEDENCE.

The machine is then taken to the shop and deposited in its proper rack, reference being had to the time when it is to be taken up. The order of precedence is determined in this manner: Each morning Blank goes over the work in the shop, and with the assistance of the working foreman compiles a list.

This list contains the name of the owner of each machine in the shop and the time when it is to be done. Each one is numbered, beginning at No. 1, and the figures determine the order in which they are to be taken up by the workmen. This list is hung up at the foreman's bench, and as each job is finished it is placed in the racks in another part of the shop and the entry crossed off the sheet.

Each workman is furnished with a memorandum book and a pencil. In the former he writes a brief description of the work done by him, the exact time expended on it and a detailed list of the materials used. Then he puts on the repair tag a number corresponding with the number in his book, with his initials.

MAKING THE CHARGE.

If the customer calls for his machine when the men are still at work the charge is compiled from the book in the shop. After the workmen leave, however, all the books are collected, taken to the office and there checked up with the tags, so that when a machine is called for all the information is found on the tag in the office. Consequently if the repair is a cash one the money is paid over at once, while if it is a book account the tag is used as a charge slip.

Either at night or the first thing in the morning, the former being preferable if time permits, the workmen's repair books are collected, together with the tags of the machines, and calculated and charged; compari-

son, meanwhile, being made with the estimated or fixed price. Then the total time charged by the workmen on their books for the day is calculated.

In this way it is easy for Blank to see that each man works his full ten hours; or, at least, that he (Blank) gets that many hours credited on the repairman's book. It is then an easy matter to compare the time actually charged against each job with the estimated or fixed price and to strike a balance. If there is a discrepancy, then the price quoted must be wrong or the workman is slow or fast.

The consequence is that it is an easy matter to arrive at an exact knowledge of the result of each day's work. If there are six men employed, Blank knows that they have returned an aggregate of sixty hours' work. If he does not get paid for sixty hours' work, then it follows that (1) his men are slow, or (2) his prices are too low; unless it should be that there is not enough work for all the men, when the fact will be instantly revealed.

By working on this system Blank keeps his finger on the pulse of his business and follows its every fluctuation. If the work piles up in the shop, each day a little more being added to the quantity left over, it follows that an increase in the force, even although temporary, is needed. If it goes the other way, if the jobs are quickly disposed of and the men wait for more, even although the delay may be slight, a reduction of force is called for.

A repair shop run on this or a similar method is never a doubtful enterprise. It is either a success or a failure, and no doubt can be long entertained as to which category it should be placed in. The issue may be clouded by the granting of excessive and indiscriminate credit, or the profit yielded may be diverted into the coffers of a retail store or other channels; but that is quite another story, and the fact is readily ascertainable.

So, too, the profits made in one half of the year may be swallowed up in the succeeding dull period. Against such a contingency, or calamity, there are various ways of guarding.

But there is nothing more important than to know just exactly how the business is panning out. Forewarned is forearmed, and the tradesman who is enterprising enough to keep in touch with his business is just the one to devise some way of getting out of the Slough of Despond into which he might otherwise fall.

Not Guilty, Says Merrill.

Fred T. Merrill writes that the report that the trade in Portland, Ore., was being affected by price cutting has no foundation in fact. He says it must have been started by some dealer who felt "called on to give some excuse for not doing all the business." His own business is, he says, away ahead of last year's record. Despite continued bad weather his sales of bicycles have passed the 2,000 mark, and six men are being kept busy day and evening.

Motor Bicycle's Second Century.

The first century run on a motor bicycle in this vicinity, and the second in this country was completed on Friday last, the 12th inst. Will R. Pitman and Emil Hafelfinger were the participants. Pitman rode the first twenty-five miles and Hafelfinger the other seventy-five, the men rounding out the even hundred on pedal propelled bicycles; that is to say, one motor bicycle served both.

The bicycle was Hafelfinger's, and the same which created such a furor at the New York Cycle Show. The motor has horizontal flanges, and it was to test their cooling qualities that the run was made. They demonstrated their worth. At no time did they over heat, or the engine "skip," in fact, the only trouble experienced was with the batteries, which ran down and became weak after sixty miles had been covered. This necessitated a long delay in order to obtain fresh cells. The hundred miles were completed inside of ten hours, of which three hours were spent off the wheel.

Sager's Saddle for Coasting.

In response to a query last week as to the volume of business in the saddle department,



Manager George C. Seager, of the Sager Gear Co., Rochester, N. Y., pointed to several cases of saddles going to prominent makers, and stated that they were further behind on orders than at the corresponding time last year.

It is of their latest production, however, the Sager coaster saddle, that the company are proudest. Referring to an article in a recent issue of the *Bicycling World* pointing out the necessity for a special saddle for use on coaster-brake wheels, the Sager Co. point out that they have just provided for that demand by bringing out this newer saddle, which is here shown. It is specially designed to meet the requirements of the rider when his weight is resting on the seat and no part of it is borne or can be borne by the pedals, as in coasting or when astride a motorcycle. The claim that it has the most unique spring ever used on a saddle seems justified, as the illustration attests. The jar is absorbed, the Sager people claim, and the possibility of injury from the saddle shocks which are so inseparable from the coaster-brake wheel with rigid base saddle, even when fitted with coil springs, is avoided. The Sager faith in this saddle is so strong that they offer to exchange it free of cost in the event that it fails to give satisfaction. It is one of those articles with which dealers may easily work up a "special trade"—that is to say, it should be easy to sell it to all whose wheels are fitted with coaster-brakes or who bring them into a store to be fitted with them.

Augusta Writes Cycling History.

History as she is wrote is sometimes of an eye-opening character, but it is safe to say that no more original résumé of the evolution of the two-wheeler has ever been penned than is contained in an article which recently appeared in the *Augusta (Ga.) Chronicle*.

Referring to the appearance of the motor vehicle, which is held to be the logical outcome of the old boneshaker, the writer says:

The old velocipede consisted of two small wheels, one in front of the other, with a seat between. It was propelled by the tips of the rider's toes striking the ground, and in motion presented the appearance of a man walking or skipping between two wheels, and, as a matter of fact, so he was.

The next development was the placing of cranks on the front wheel, to which pedals were attached, but only a strong man could propel it, and it was impossible to pedal it up even a slight grade.

Then came the enlargement of the front wheel and the change of the name to bicycle. The bicycle was quickly improved. First came the change from wood to iron, then the introduction of cone-bearings and hard rubber tires. Then the tangent spoke and ball-bearing were introduced, and in a few years the high wheel was reduced to the size of the old velocipede, with chain gearings, rubber tires, which later were enlarged and made hollow, and ball-bearings, all complete.

And about ten years ago came the pneumatic tire, invented by L. C. Smith, of New-York. At this time the three great manufacturers were Pope, Overman and Gormully & Jeffery.

With the pneumatic came a great bicycle craze and factories sprang up all over the country, reducing in the great race for trade the price of the wheels from \$100 to \$150 to almost one-half. Previous to this the profit to the manufacturer was over 60 per cent.

Veeder Rights in English Courts.

Some months ago—in December last, to be exact—the *Bicycling World* gave the particulars of litigation which was then being conducted in the English courts over the patent rights to the Veeder cyclometer.

A hearing was had in the Chancery Division at London on the petition of A. W. Gamage, Ltd., "for a rectification of the register of trademarks," the one in question being that of P. M. Justice, No. 19,835, of 1895. Under this number and date letters patent were granted to Justice as a concession from the Veeder Mfg. Co.

It now appears that after a considerable interval a decision has been rendered by the court. Under date of April 6 A. W. Gamage writes to the *Bicycling World* that "the petition which we presented for the revocation of the Veeder patents in England has been partly successful. The judge held that the first claim was bad, and this judgment carried our costs. He granted permission to have the patent amended on Claim 2, with leave to appeal if they desired to do so. The costs will amount to a considerable sum."

ABOUT THE LABORATORY

Why 'the March of Progress is Likely to add to its Importance.

Cycle building is becoming more and more an exact science. The haphazard processes once in vogue have almost passed away, and the successful builder of to-day must turn out goods which, under elaborate and practical tests, will demonstrate their efficiency and economy of power.

Theory without practice, however, has not been a remarkable success, especially in the field of cycle construction. It has frequently been the case in the past that laboratory tests have been of comparatively little value, and that machines designed and constructed in obedience to them have fallen down lamentably when subjected to actual road use. On the other hand, it will not do to condemn such tests simply because they have not been supplemented, as they should have been, with more practical ones. One is the logical complement of the other, and this is pretty well understood by this time. Touching on this subject, a well known engineer says:

"It is now generally admitted that the laboratory is an indispensable adjunct to the engineering college, or, in other words, that experimental study is necessary for the proper training of the engineer. The usefulness of the laboratory to the engineer in actual practice, however, is not so generally recognized, or, if tacitly admitted by many, the belief is but seldom acted upon in daily professional life. Yet it is certain that if they are not to degenerate into mere copyists and salesmen, engineers must take up the question of applying experimental research in connection with their daily work, so as to be able to improve upon what has been designed by others, and to discover fresh fields of operation for themselves.

"Although until recently the art of engineering has prospered very well without any direct obligations to research laboratories, it is far from being the case that it has arrived at its present condition without experimentation. The task of the engineer of to-day, however, differs greatly from that of his predecessors.

"As the processes of manufacture have become perfected, as the materials of engineering have increased in number and complexity of properties, as the emulation in excellence and efficiency has become more severe, so the roughly approximate theories which were sufficient for the days when competition hardly existed, and almost every kind of engineering work was of a lucrative character, have ceased to be adequate, and the methods and instruments of testing have been endowed with greater delicacy and precision.

"In every kind of industry that consumes power the necessity for reducing the cost of production has invested the question of the useful effect of motors and machines with an exceptional importance, and the time seems

to be approaching when no machine will be accepted without a guarantee of its efficiency, to be determined by trial, and when a closer approximation to the absolutely most economical forms would be assumed by all the elements and parts of machines under the influence of a more searching experimental study of their strength, accuracy and economy of operation.

"In order, therefore, to be in keeping with the progress of engineering, science and art, and to meet the exigencies of industrial competition, it seems evident that mechanical laboratories containing motors and machinery on a commercial scale, specially designed and fitted for experimental research on all questions of engineering design and detail, are a necessity of the future.

"The laboratory, when properly equipped and made use of, might become a really important factor in industrial competition, the condition necessary for successful work being the co-operation of the leaders of manufacturing industries, who must realize its intrinsic utilitarian value and the high national significance such laboratories are assuming."

Autos for Cycle Agents.

Wise in their generation, the Rochester (N. Y.) Cycle Mfg. Co. are appealing directly to the bicycle agent, now that they have added automobiles to their manufactures.

Their vehicle is a steam runabout and an uncommonly attractive one, with tubular running gear, enamelled black and striped with red. The body and seat are of full carriage size, of graceful design, standard wagon tread, the body lined inside with asbestos, and finished in rich enamel and upholstering. The engine is of 4 horsepower, two-cylinder, reversible type, capable of a 50 per cent overload. The boiler is a seamless steel shell of great strength, fitted with copper tubes. The boiler is tested to 600 pounds' cold-water pressure, and 400 pounds' steam pressure. By an original device the main flame can be regulated from the driver's seat, the advantage of such an arrangement being obvious. The pilot light is operated entirely independent of the main burner, and the carriage can be left standing for long periods and then be ready for use by simply turning on the gasoline on the main burner. The fuel capacity is six gallons of gasoline, a supply for about seventy miles, and thirty-five gallons of water, a supply for about thirty-five miles.

Sixpence per Day.

English trade circles are considerably perturbed over the inauguration by a well-known retail concern of a plan under which bicycles are sold for sixpence a day. The figure is undoubtedly low, but as the monthly payments under this plan would reach the half-way respectable figure of \$3.60 there is really nothing to cause any very great surprise. Bicycles have been sold for smaller payments than this, and will continue to be in the future. If a concern chooses to venture so close to the danger line it is a matter which concerns it alone.

FASHIONS IN FRAMES

Swift Changes Have Been the Rule but Heights no Longer a Factor.

Fashion's changes are often held to be inscrutable, devoid of reason and determined by the most trivial circumstances.

There is something to be said for this argument, but it is one of those half truths that are apt to be very dangerous. It almost always happens that some one sees the trend of things and takes advantage of this superior knowledge. Yet to the careless observer it seems to be pure luck.

When high frames—built-to-reach machines—were in the heyday of their glory it ought not to have been difficult to foresee what the next move would be. Yet some makers thought that there would be no change for a while, and others pinned their faith to the medium-height frame as the coming winner.

Consequently when the fashion changed with whirlwind rapidity, and the extremely low frame leaped into sudden popularity, they were both surprised and unprepared.

Yet there was nothing strange in this change. Riders had stamped with the seal of their approval first medium frames and then high ones. Nothing could be more natural than that when a third change was desired—solely for the sake of change—it should be to something radically different from former patterns.

Frames of twenty and twenty-one inches offered the greatest possible contrast to the twenty-five and twenty-six inch heights that were in vogue. Of course, then, they achieved instant popularity.

At the present time medium frame heights rule, and promise to do so for quite a while to come. In fact, frame heights are not at present a factor in the game; the changes have been rung too often and too violently, and it is now time for a rest.

The analogy between the fashion in frames and in any other part of the bicycle is a close one. It is not always possible to forecast the future, but a few lapses will always be pardoned if the forecaster's judgment is right in the main.

But to take the view that fashion's dictates are never discoverable is more than a mistake—it is a crime. It involves the wilful throwing away of chances to profit by these changes, instead of suffering through them, and is utterly indefensible.

Gears Cause Little Talk.

Gears are not very much talked about nowadays, but it is undeniable that the upward movement has been checked. Whether this means that a reaction will set in is quite another matter; but it will scarcely be gainsaid that a further rise would have been regrettable.

The Retail Record.**FIRES.**

New-Orleans, La.—George D. Cronin.
 Lehigh, Ia.—H. W. Ross, stock damaged.
 Louisville, Ky.—A. L. Semple & Co., stock damaged.
 Buffalo, N. Y.—J. A. Cramer, 602 Main street, loss \$25. Caused by an explosion of tire cement.

CHANGES.

Princeton, N. J.—Charles C. Sager, moved to Ambler, Pa.
 Clinton, Ill.—Rymer & Fulton succeed J. A. Rymer.
 Las Vegas, N. M.—Young & Biehl succeed Young, Frick & Harris.
 Detroit, Mich.—Brown Cycle Supply Co., style changed to Wimmer Cycle Supply Co.
 Moorhead, Minn.—Sam Lundgren succeeds I. E. Johnson.
 Tempe, Ariz.—Tempe Hardware & Supply Co. bought out the Bicycle Electric & Plumbing Co.
 Chicopee, Mass.—Grady & Minie have moved from Market Square to Exchange street.
 Rock Rapids, Ia.—J. Feay succeeds Feay & Collins.
 Columbus, O.—J. A. Erner & Co. are moving to Cleveland.
 Beloit, Wis.—W. G. Blair, sold out.
 Covina, Cal.—McBride & McIntosh, sold out.
 Arcade, N. Y.—C. J. White, sold out.
 Aberdeen, S. D.—Barnes & Ribley Cycle Co. C. M. Barnes has purchased B. N. Ribley's interest.
 Louisville, Ky.—Williams Bicycle Messenger Co., removed to 644 Fourth avenue.
 Dausville, N. Y.—Edwards, Kern & Miller succeed Edwards, Kern & McMurdy.
 Minooka, Ill.—M. L. & W. H. Kaffer succeed Martin Kaffer.
 Birmingham, Ia.—E. H. Alton succeeds Alton & Countryman.
 Burlington, Ia.—Sutter & Jumble succeed J. B. Sutter.
 Capron, Ill.—E. W. Livingston succeeds E. W. Livingston & Son.
 Elwood, Ind.—Taylor & Son succeed Taylor Bros.
 Spring Valley, Wis.—W. H. McKernon succeeds McKernon & Martin.

NEW STORES.

Blair, Wis.—Paul Kuemon, repair shop.
 Whitesboro, N. Y.—John Eberly, Tracy street.
 Moline, Ill.—Thomas Paul, repair shop.
 Waterbury, Vt.—Frank E. Williams, repair shop.
 Dwight, Ill.—Elmer Fenn, reopening.
 Stevens Point, Wis.—Arthur Clements and Virgin Ross, repair shop.
 Brockton, Mass.—G. H. Spofford.
 Sandwich, Mass.—H. A. Cook.
 Forestville, Conn.—Henry Warner.
 Bellows Falls, Vt.—Lawrence Cannon, Atkinson and South streets.
 Chicopee, Mass.—Levi Booth, repairing.
 Leroy, N. Y.—H. Wright.

Mount Pleasant, Mich.—T. H. Battle.
 Waverly, Mass.—E. Harlow, repairing.
 Alfred, N. Y.—Winfield R. Crandall, North Main street, repairing.
 Quincy, Mass.—William St. Pierre.
 Rochester, Pa.—Frank P. Gray, repair shop, reopening.
 Crown Point, Ind.—Grant Hunter, repair shop.
 Lockport, N. Y.—Burt J. Le Valley, 14 Main street.
 Manchester, Mass.—Perkins & Corliss, Washington street, reopening.
 Northampton, Mass.—W. J. Tidd, 15 Masonic street.
 Edgeworth, Mass.—Jeremiah Murphy, repairing.
 Beverly, Mass.—A. T. Larrabee, 30 Lynnfield street.
 Norwalk, Conn.—Lockwood & Ives, repair shop.
 Lenoxdale, Mass.—William Harrigan and Harry Bull.
 Middleboro, Mass.—F. W. Hayden.
 Glens Falls, N. Y.—Austin & Combs, repairing.
 Clinton, Conn.—Freeman E. Smith, repairing.
 Brookton, N. Y.—Charles M. Schooley, repairing.
 Baldwinville, Mass.—W. W. Oliver, repairing.
 Quincy, Mass.—L. & J. D. Conpal.
 Brockton, Mass.—Mr. Bouwich, repairing.
 Grand Forks, N. D.—M. T. Caswell, repairing.
 Rock Springs, Wyo.—John Forndram.
 Harrisburg, Pa.—George G. McFarland, new branch at 14 North Market Square, H. C. Hamilton in charge.
 Danvers, Mass.—Roberts & Walker, reopening.
 Wichita, Kan.—Schollenberger Bros.
 Boylston Station, Mass.—C. E. Johnquist, reopening.
 Penn Yan, N. Y.—Wilkins & Ward.
 White Bear, Minn.—Frank Carpenter.
 Forestport, N. Y.—Will Darling.
 Palmer, Mass.—Wallace Knowlton.
 Jefferson, Ia.—Fred Hutchinson.
 West Roxbury, Mass.—F. B. Taylor and A. W. Chamberlain.
 Sault Ste. Marie, Wis.—Howell & McCaulley.
 Webster, Mass.—Warren F. Howard, of Worcester.
 Westerlo, R. I.—C. B. Bliven.
 Utica, N. Y.—George W. Carr, 9 Sunset avenue.
 Greensburg, O.—C. Firestone.
 Kittanning, Pa.—Leroy F. Green, repairing.
 Taunton, Mass.—Joseph Valentine, Broadway.
 North Cambridge, Mass.—J. W. Barry.
 Racine, Wis.—N. Johnson, 1322 Washington avenue.
 Marinette, Wis.—J. Gordon.
 Bad Axe, Mich.—Meredith & Rickman.
 Utica, N. Y.—W. H. Brewster, 251 Bleecker street.

Thompsonville, Mich.—F. E. Lang, repair shop.

Little Falls, Minn.—Charles Guernon, First street.

Madison, N. J.—N. A. Van Wagener, Main street.

Protecting One's Self Against Thieves.

"The risks the crooks take in order to obtain bicycles is something frightful," a Minneapolis dealer is quoted as saying. "Talk about umbrellas being considered legitimate prey! They are not in it with bicycles. There is a class of rogues in the community who seem to think that they are entitled to get a bicycle any way they can, and they will take desperate chances to get one, going even to the length of hanging around repair shops, procuring the names of people who leave wheels to be repaired, and then sending in forged orders for the delivery of them.

"The careful repairer will not deliver a wheel on an order, unless the person delivering it is identified. In one case recently an order was presented by a man unknown to the dealer, who hesitated about delivering the wheel. But, looking out of the window, he discovered a pair of fox terrier dogs which he knew were the property of the owner of the wheel, and he assumed that the man with the order would not be there in the company of the dogs unless he was all right, and he accordingly delivered the wheel."

Germans Buying Chainless Gears.

The Sager Gear Co., of Rochester, N. Y., makers of the Sager gears and Sager saddles, are as busy as the proverbial bee these days. During the visit of a Bicycling World representative last week a large order for Sager gears and fittings was received from the Adler Fahrradwerke Co., Frankfort-on-Main, Germany. As an illustration of the careful methods of German merchants, with the order were blue prints showing in detail the minutest parts and dimensions of every single article, even the tiny screws being carefully drawn and dimensions given. The European success of the Sager gear has been noticeable, and business, they report, is steadily increasing.

Where There is no Idling.

Although the inclement weather of the last two weeks has retarded trade in this part of the country, J. M. Linscott, manager of the Boston Cycle and Sundry Co., is one of those who have no complaint to make. His big deal in Fisk and Kangaroo tires has given him so much elbow room that with his sundry and fittings trade he has little time for idling. His men are kept pretty well on the move all the time. He reports having shipped tires to all parts of the country, but his supply is not yet exhausted, and he can still fill all reasonable orders promptly and well.

Boutell Bros., of Minneapolis, are quoted as saying that two-thirds of their sales are of chainless bicycles.

RULE-OF-THUMB WORKMEN

How They Played Hob in the Trade and how They are Being Replaced.

In the course of a varied experience of both large and small shops I have been considerably struck by the absence in cycle making shops of processes and appliances which in the general engineering business would be considered indispensable, says a contributor to the Cycle Trader, dealing with a subject and a class of man of which Great Britain has not a monopoly.

The "rule of thumb" appears to be the only accepted guide in many small shops where even good work is turned out. Now I have a particular aversion to this "rule of thumb." It has been the undoing of many a small factory with excellent prospects.

Show me the workman who worships at the shrine of the rule of thumb, and I see a man who will never advance in his calling.

There is a certain class of workman whose only idea of his craft is to do a thing only as he has always done it or as he has always seen it done. The why and the wherefore of the particular way in which a particular job is accomplished troubles him not a bit. It is sufficient for him that it has always been done in such a way and given good results. Not for him is it to question such a process with such a record. It is not his business to use his brains to see if that particular job could not be done better or quicker in a different way. He knows no rule but the rule of thumb, and that rule is sufficient for him. He is just the sort of man who would file chain wheels from a template while a milling machine lay rusting in the corner. It is this sort of mechanic who would screw a hub to a bastard diameter, and then thread a chain wheel to fit, using the hub as a gauge, to see when he had got the wheel the right diameter. Such a workman would not think of working to measurements. Trial and error are a good enough guide to him, and what if the job does cost rather more than it ought? Well, he gets his pay anyway, and cost does not concern him.

I remember once a rule-of-thumb man coming into a large repair depot as an extra hand. He had a long record in the trade, and came with good references. That man was purely and simply a machine. He could do a job in one way or not at all, and though he might have had reasoning faculties somewhere, his continued worship of the old rule of thumb had resulted in his being able to completely disguise the fact. The first job he started was to take down a Premier bicycle, one of the old brigade, with the cup and cone bracket. One would have thought that man had seen a Premier before and knew its peculiarities, but Premiers are not built to rule of thumb, and the result was disastrous. With a long spanner he pulled

round left-handed on the bracket back nut till he stripped the thread, and then only discovered that it was fitted with a right-hand thread.

On being expostulated with, his excuse was that all the cycles he had seen had been fitted with left-hand threads, and how was he to know that this particular one had a right-hand thread? I met this man again lately, after having lost sight of him for some time. He was still running on the good old rule of thumb. I met him in a country repair shop, and he was putting the finishing touches to a leather gear case which he had just fitted to a lady's cycle. While I was in the shop the owner of the machine came in for it, paying the bill, and was about to take it away. I gathered that she had been having a free-wheel clutch fitted, hence the reason why the gear case had been removed. She walked the machine out into



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

the road and proceeded to mount it, when the pedal immediately pushed around instead of allowing her to rise on it and mount the machine. Evidently something was wrong with the clutch, and the machine was wheeled back into the shop, where it was discovered that the rule-of-thumb man had fitted the clutch on wrong way round. He was still living up to his well-earned reputation.

Yet that man was not utterly incompetent. I saw him repairing the broken neck of an old ordinary bicycle used by a country navvy to get to and from his work on, and the way he handled that job would make many an up-to-date repairer envious. He was simply behind his time, because he followed a rule which never caught up with the march of events. Fellow-workmen, if you want to keep abreast of your trade and be something more than a brainless machine, chuck out the rule of thumb. Never do a thing in a certain way only because you have done it so before. There is one best way to do every job, and that best way will in ninety-nine

cases out of every hundred be missed by the man who follows the rule of thumb.

I suppose some ten years ago it was a very uncommon sight to see a cycle maker with a micrometer gauge. A six-inch rule graduated to sixty-fourths and a pair of inside and outside callipers were about as fine measuring instruments as were used or considered necessary. But the value of accurate measurements has in these latter days made itself apparent. Many of my readers will remember the days when fittings, so called, had to be dressed with a file to make them fit, and when the labor on a cycle was about twice as much as it is to-day, when using up-to-date fittings and components.

This evolution has been brought about by the adoption of accurate measurements. A frame builder to-day will swear at a lug which fits rather tightly on the tube or one that wants the slightest amount of caulking. Ten years ago a bastard file was pretty often in the frame builder's hands, and, more often than some of us like to remember, such subterfuges as sheet-steel packing on lugs too big or tubes too small were requisitioned. All that is altered to-day, and the frame maker now has hardly ever to have recourse to such "faking" devices.

Accurate measurement has also made itself apparent in the teeth of chain wheels and the pitch of chains. In the days of the old heavy laminated block chains, chain teeth were of a variety of shapes and wheels of a diversity of pitches. It was no uncommon thing to see a wheel touched up with a file to suit a badly fitting chain. Nowadays such procedure would be ruled out of any respectable workshop, even if the foreman was a rule-of-thumb man; for even he would have discovered that such things as wheel try gauges existed, and that accurate cutting in the miller was better than indiscriminate fitting with a file.

In the same way drawings are to-day to be found in shops where before every measurement was kept in the head of the frame builder, and nearly every frame came out with different angles and of different shape to its neighbor. The workman who has discarded the rule of thumb, commenced to use his brain, invested in a Vernier gage and knows how to use it, and also understands how to read and work to a drawing, is the man who is wanted in the shop to-day, and there is plenty of room in the rear for the man with the empty head and the eternal rule of thumb.

What Patterson Called for.

John C. Patterson, of the United Supply Co., Boston, who was close to death's door, has entirely recovered. He returned to business last week after convalescing at Old Point Comfort. On his return to the office, says his partner, George F. Kehew, one of his first calls was for the back numbers of the Bicycling World. He wanted to post himself on the trade happenings during his illness, and knew the paper in which he would find them recorded.

COMFORT

with

SPEED

is the

CUSHION FRAME

Motto.

The CUSHION FRAME is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold WITHOUT IN THE LEAST DETRACTING from the SPEED or POWER of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy, "get there" riders who at first "scoffed" the idea of COMFORT being combined with "speed and power" in a bicycle.

HYGIENIC WHEEL CO.,**220 Broadway, New York.**

Owners of the Cushion Frame Patents.

Greece Beginning to Awaken.

Bicycles are gradually coming into use all over Greece, according to a British consular report, but the cheap German article is in demand, as the majority of cyclists cannot afford to pay English prices.

"The catalogs sent to this consulate are always placed on a table in this office for inspection by persons who might wish to do so," adds the consul, "and, though beautifully printed and well gotten up, will never attain the desired effect unless they are accompanied by translations in Greek, Italian or French; metrical weights and measures should also be given, and, if possible, quotations made in decimal currency. This would doubtless entail extra expense and labor, owing to the fluctuations of exchange. It is to be hoped, however, that this difficulty will eventually be overcome."

Another consul predicts a "boom" in imports of all kinds to Thessaly in the near future. The requirements of the Thessalians are increasing steadily, and as there are few manufactories there or in other parts of Greece, "the demand for foreign productions is certain to augment in the near future." A chamber of commerce, the first in Thessaly, has been established at Volo, and will doubtless have a considerable beneficial effect on the commercial growth. Roads are being constructed, one as high as 2,000 feet above sea level, on far famed Mount Pelion. Altogether, there are 143 miles of carriage roads in use, and 24 in course of construction, while there are also 17 miles of "mule roads" in use.

Sh-h! Don't speak it too loudly. An English paper states that, having used them successfully on the path, not a few riders are now using single tube tires and wood rims for road work. It suggests that signs of the millennium will shortly appear on the horizon.

An adjustable toe clip, modelled on lines familiar in this country, has been placed on the English market, and in two months 72,000 pairs are said to have been sold.

Why Buy New Jersey Mud

mixed with Sulphur and baked on to Fabric, when for about the same price you can buy really High Grade Tires?

No. 66 Fisk just one-half factory price, and Kangaroo one-half price.

Write for prices before they are closed out.

BOSTON CYCLE AND SUNDRY CO.,

J. M. Linscott, Manager,

7 HANOVER ST.,

BOSTON, MASS.

OUR
CRANK
HANGER
DOES
IT.The
RacycleDOES
WHAT ?
MAKES
IT RUN
EASY.**ECLIPSE BICYCLES**

Better than ever.
Good Agents Always Wanted.

SEYMOUR MFG. CO.,

99 CHAMBERS ST., NEW YORK.

The Manson & The Sherman
**BEAUTY AND
RELIABILITY COMBINED.**
**THE MOST DESIRABLE
OF ALL AGENCIES.**
- ASK FOR IT -
THE SHERMAN CYCLE CO. CHICAGO, ILL.

NOVA SCOTIAN SCHEDULE

Repairs Rule Slightly Lower Than in the United States—The Figures.

While they rule slightly lower in a few particulars than obtain on similar repairs on this side of the border, generally speaking, the tariff that prevails in Nova Scotia does not differ very materially from those in effect in the United States. These prices, in effect in Yarmouth, show this quite clearly:

FRAME REPAIRS.

Replacing—	
Top tube and enamelling same.....	\$3.50
Lower tube and enamelling same....	3.50
Top and bottom tubes and enamelling same.....	5.00
One rear fork side and enamelling same.....	3.00
Two rear fork sides and enamelling same.....	4.50
Seat post mast and enamelling same.	4.50
Head and enamelling same.....	3.50
Head frame connection and enamelling same.....	2.50
Seat post connection and enamelling same.....	2.50
Crank-hanger bracket and enamelling same.....	4.50
One rear fork end and enamelling same.....	2.00
Two rear fork ends and enamelling same.....	3.00
Repairing unbrazed joints and enamelling same.....	1.50
Lining up frames and enamelling same....	
Splicing tube and enamelling same....	1.50
Repairing dents and enamelling same..	.50

RIMS AND SPOKES.

Wood rim, common 1½ to 1¾ inches....	\$2.00
Wood rim, extra quality.....	2.25
Wood rim, racing or tandem.....	2.50
Wood rim, detachable tires.....	2.25
Metal rim.....	2.50
Truing wheels, each.....	
Wood rim and spokes.....	3.00
Respoking; without rim.....	2.25
One spoke.....	.25
Two spokes.....	.35
Each additional spoke.....	.10

CHAIN AND MUD GUARD.

Lacing chain guard.....	\$.25
Lacing mud guard.....	.50
Lacing both guards.....	.75
Wood mud guard on woman's bicycle..	1.25
Wood chain guard.....	1.00

NICKEL PLATING.

Handle bar.....	\$1.00
Large sprocket.....	.75
Fork crown and tips.....	1.00
Fork crown only.....	.75
Spider crank.....	.50
Pedal.....	.50
Crank.....	.35
Seat post.....	.40
Small parts and fittings, each.....	.15

ENAMELLING.

Frame and forks, black.....	\$3.00
Frame and forks, colors.....	3.50
Frame and forks, white.....	4.50
Front forks.....	.75
Striping frame, plain, extra.....	.50
Striping and decorating, extra.....	1.00
Enamelling rims, each.....	.50
Enamelling two rims.....	1.00
Air drying frame and fork.....	1.00
Putting aluminum on spokes, both wheels.....	1.00

TIRE REPAIRS.

Putting inner tube in single-tube tire..	\$2.00
--	--------

Punctures, single-tube tire, each.....	.25
Punctures, double-tube tire, each.....	.40
Punctures, double-tube detachable tire, each.....	.25
Vulcanizing patches.....	1.00
Cementing on tires, each.....	.20
Cementing on tires, pair.....	.35
New valve.....	.35
New valve and stem.....	.50
New valve stem.....	.35
New valve metal on single-tube tire....	.65

GENERAL REPAIRS.

Front axles, each.....	\$.50
Front wheel cones, each.....	.75
Front cups.....	.75
Front or rear wheel nuts, each.....	.15
Rear axles, each.....	.60
Rear wheel cones.....	.90
Rear wheel cups.....	.90
Crank-hanger cones.....	1.25
Crank-hanger cups.....	1.25
Crank-hanger axles, plain.....	1.75
Straightening crank.....	.25
Straightening pedal pin.....	.25
Cleaning bicycle inside and out.....	1.25
Cleaning bearings.....	1.00
Cleaning crank hanger.....	.35
New pedal axles, each.....	.75
Cementing grips, each.....	.05

FRONT FORK REPAIRS.

Lining up forks.....	\$.50
One new side.....	1.25
Two new sides.....	2.50
New stem.....	2.00
New crown.....	2.25
One fork tip.....	.75
Two fork tips.....	1.50
Complete forks and crown.....	4.50

SPROCKET AND CRANK REPAIRS.

Fitting rear sprocket, 7, 8, 9, 10 teeth..	\$.50
Fitting front sprocket.....	.85
Truing front sprocket.....	.25
Repairing ordinary crank, each.....	1.00
Cotter pins, each.....	.25

CHAIN REPAIRS.

Putting in one link.....	\$.25
Cleaning and lubricating.....	.15
Taking out one link.....	.15

Resisted the Inspectors.

Under a law which has recently gone into effect in Minneapolis, Minn., a number of inspectors have been appointed who are empowered to enter bicycle stores and repair shops and examine the stock, with the idea of keeping track of stolen machines. One dealer, Charles Horwitz, 303 Washington avenue, took offence at the visit of a couple of these inspectors recently, and threatened to shoot them unless they took their departure instantly. As a result Horwitz was arrested, and will be arraigned in the police court on the charge of disorderly conduct.

Marshall-Wells's Expansion.

The Marshall-Wells Hardware Company, Duluth, Minn., who are also a factor in the cycle jobbing trade, have moved into their great new store, which, with one exception, is claimed to be the largest in the United States; they now have in contemplation the establishing of a branch house in San Francisco to subserve the interests of Oriental trade. The firm have had an agent in China and Japan for a year looking up the trade prospects in those countries.

GENERAL OFFICES
KEATING WHEEL COMPANY.
KEATING BICYCLES.

Middletown, Conn.,
Apr. 13, 1901.

Mr. Wide-Awake Dealer,
Unoccupied Territory,
Cycledom.

Dear Sir: How is business? That is the MOST IMPORTANT QUESTION TO YOU. Is it so good that you do not want to make it better? To make it better there is only one way, and that is to handle a line with distinctive features which are also superior features; features that your competitors cannot show. We speak of the Curved Frame, conceded by all mechanical experts to be the lightest and strongest frame built, and our Double Roller Chain, the only bicycle chain which will run noiselessly under all conditions. These are the cardinal points in a bicycle: namely, lightness, strength and easy running qualities.

In the motor bicycle, we have the only Perfect Motor Bicycle yet constructed. It is not a bicycle with a Motor attached, and is distinct from all other types just as our chain bicycles are superior to all others.

Our discounts are just right, we can assure you. We cannot say anything of our treatment until you give us an opportunity. We know you can make money with our line, and we want you to do so. We are ready for deliveries, so let us hear from you at once.

Yours very truly,
KEATING WHEEL &
AUTOMOBILE CO.,
Middletown, Conn.

The Week's Patents.

671,435. Bicycle Brake. Clarence K. Davis, Indianapolis, Ind. Filed November 27, 1899. Serial No. 738,394. (No model.)

Claim.—1. A bicycle brake including a brake lever consisting of two members in substantial alignment with each other so united that the shape of the lever can be modified.

671,478. Vehicle-Driving Mechanism. Johannes Grimme, Bochum, Germany. Filed March 10, 1900. Serial No. 8,223. (No model.)

Claim.—In velocipedes the application of a hand driving mechanism to the frame of the front wheel, so as, when steering the wheel, to be rotated with it, said mechanism consisting of rods *d* mounted in the frame of the front wheel and provided with handles *c*, of levers *e*, connecting rods *f* and cranks *g* projecting in one direction, all these parts suitably connected to each other and transmitting the movement of the handles *c* to the front wheel, the whole for the purpose as set forth.

671,647. Handle-Bar Extension. Albert H. Field, Providence, R. I. Filed May 22, 1900. Serial No. 17,524. (No model.)

Claim.—1. As a new article of manufacture, a handle-bar extension for bicycles consisting of a bar, one end of which is bent laterally and provided with a head at right angles to the bar, the centre of the head being substantially in a line with the centre of the bar, and the other end is provided with an expansible opening at right angles to the bar and parallel with the head, the head being provided with means for adjustably and movably securing it to the fork of a bicycle and the walls of the opening being provided with means for varying the size of the opening for the reception of the handles, substantially as described.

671,739. Motor. Henry T. Vaders, Philadelphia, Pa. Filed September 25, 1900. Serial No. 31,057. (No model.)

Claim.—1. A motor having a plurality of cylinders projecting into the main exhaust chamber and provided with pistons connected with a common driving shaft in said exhaust chamber, a valve chest common to all the cylinders, a valve therein, means for causing said shaft and valve to rotate in unison, mechanism and a sleeve located in the exhaust chamber and connected with said valve for receiving its motion, and

means for operating said sleeve and mechanism, as set forth.

671,816. Dress-Guard for Bicycles. Lester D. Cooley, Battle Creek, Mich. Filed July 24, 1900. Serial No. 24,636.

Claim.—1. A dress guard for bicycles comprising a cover adapted to extend over the top and upper rear quadrant of the sprocket wheel, provided with side walls, and with a rear wall uniting the side walls beneath the chain opening, one of said side walls being provided with arched slots *d*, *e*, whereby the guard can be adjustably secured to the bicycle, substantially as described.

Changeable Gear for Safety Bicycles. James W. Cromer, Shelby, Ohio. Filed July 12, 1899. Serial No. 723,563. (No model.)

Claim.—1. In a device of the character described applicable to any wheel for changing the speed thereof, the combination with a crank hanger, crank shaft and bearings therefor, of a sprocket wheel, the body portion of which is provided with an annular recess, said body portion fast on the crank shaft, raceways on said body portion, said raceways on either side of a slot communicating with said annular recess, balls in said raceways, a loose rim provided with sprocket teeth bearing on said balls, a tongue on said rim extending into said slot, notches on said tongue, retaining rings between said loose rim and the body portion of the sprocket wheel whereby to co-operate in conjunction with the tongue to keep the loose rim in place, an L-shaped clutch pin extending into said annular chamber, one end of said clutch pin adapted to engage the notches on said tongue whereby to cause the loose rim to revolve with the body portion of the sprocket wheel, the other end of said clutch pin bent at right angles to its main portion, said free end bevelled and adapted to be engaged by a sliding collar provided with a similar bevelled face whereby to throw said clutch pin into engagement with said notches on the tongue of the loose rim.

There are excellent prospects of the long-expected fight between the Dunlop "octopus" and the outside tire makers coming to an issue. The Dunlop Tire Co., having threatened cycle dealers and others who use or sell rubber strips for tires with a non-slipping pattern on the tread, the English Rubber Manufacturers' Association have served notice that they stand ready to join the issue and defend any case that may be instituted.

How to File Discount Sheets.

The filing of catalogs and discount sheets for convenient reference is a matter that taxes jobbers and dealers in practically all lines of trade. The usual practice is to merely paste the discount slips in the particular catalogs to which they refer; but when occasion arises this practice requires that slips be torn out and repasted.

A hardware man who has experienced this sort of thing has hit upon a simple plan that appears as efficient as it is simple. Instead of attaching the discounts to the catalogs, he pastes an envelope, flapside front, inside the front cover of the catalog, then folds and inserts the discount sheet and files the catalog where it will be handy for reference. When it is found necessary to refer to the catalog and make use of the list and discount applying to any certain article, all that is necessary to be done is to turn to the front of the catalog, turn up the flap of the envelope, take out the inclosures and all that is required is within reach.

Sometimes an occasion arises where a customer desires a catalog for examination. In such a case it is not desirable that he should see the discount; by using envelopes as stated, it requires only a second to take the slips out of the envelope and give him the book. If they are merely pasted in the catalog when an occasion of the kind occurs, it is necessary to either tear out the sheet, which would indicate to the customer that you were trying to keep information from him, or else permit it to be handled with that information unnecessarily within his reach; when the envelope method is used there is no necessity for adverse criticism or want of confidence.

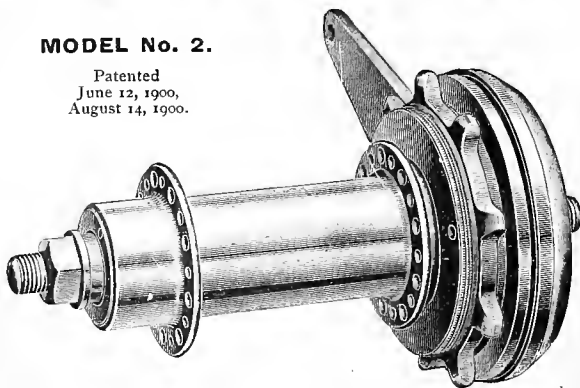
Stoddard Dead.

Oliver H. P. Stoddard, of the firm of Dame, Stoddard & Co., Boston, Mass., hardware and cycle jobbers, is dead. He was aged 57 years.

"E Z" COASTER BRAKE.

MODEL No. 2.

Patented
June 12, 1900,
August 14, 1900.



SIMPLICITY

LESS PARTS THAN ANY OTHER COASTER MADE.

With the "E Z" COASTER BRAKE fitted to your wheel all fear at once leaves the most nervous person, for you are in position to stop the wheel immediately—and always have it under control.

Your 1901 wheel should be fitted with the "E Z."

Any dealer can furnish it.

Send for Catalog "C."

Sole Manufacturers, REED & CURTIS MACHINE SCREW CO., Worcester, Mass.

Our nearest Distributing Agent is only a few miles from you. Send for his name.

That Long Wanted Missing Link

—to complete the chain of Bicycle success—getting the trade of little folk as well as grown folk—is found in

The Elfin Bicycle,
The Standard Juvenile
Of The World.

That is the only Juvenile Bicycle that fills the wants of Juveniles as it should be filled.

Sold in North and South America, Europe, Asia, Africa and Australia.

Get the agency from us at once.

Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.

The Week's Exports.

The activity which has prevailed in the cycle export trade during the last six weeks eased up somewhat last week; despite the fact, the total was reasonably satisfactory. England and Germany were again the heaviest purchasers, with Copenhagen a close third. The record for the week which closed April 9 follows:

Antwerp—4 cases bicycles, \$100; 35 cases bicycle material, \$1,048.

Argentine Republic—1 case bicycles and parts, \$60.

Abo—51 cases bicycles, \$1,249; 3 cases bicycle material, \$110.

Aalborg—1 case bicycles, \$148.

British possessions in Africa—82 cases bicycles and material, \$2,239.

British East Indies—36 cases bicycle material, \$2,031.

British West Indies—24 cases bicycle material, \$348.

Berlin—3 cases bicycles, \$40.

Bremen—1 case bicycles, \$25; 3 cases bicycle material, \$125.

Brazil—2 cases bicycles and material, \$210.

Copenhagen—122 cases bicycles, \$3,043; 94 cases bicycle material, \$3,222.

Cuba—33 cases bicycle material, \$609.

Chili—12 cases bicycles and material, \$98.

Central America—2 cases bicycle material, \$88.

Christiania—2 cases bicycle material, \$13.

Ecuador—3 cases bicycles, \$157.

Glasgow—2 cases bicycles, \$30.

Hamburg—211 cases bicycles, \$5,415; 32 cases bicycle material, \$2,174.

London—1 case bicycles, \$21; 21 cases bicycle material, \$1,750.

Liverpool—1 case bicycle material, \$260.

New Zealand—5 cases bicycle material, \$102.

Odessa—2 cases bicycles, \$175.

Peru—1 case bicycle material, \$28.

Riga—1 case bicycles, \$60.

Rotterdam—18 cases bicycles and material, \$601.

Southampton—60 cases bicycle material, \$6,090.

St. Petersburg—19 cases bicycles, \$1,500.

Venezuela—3 cases bicycles and parts, \$40.

Head Shield for Lamps.

What is termed the Hurricane head shield has been brought out by one of England's best known lamp manufacturers. It fastens over the top of the ordinary lamp, and, it is claimed, prevents all possibility of the flame being extinguished by a sudden down draught in a high wind. It also has the effect of inducing a better upward draught of air inside the lamp, improving the combustion and the illuminating power of the lamp.

Practically Using Solid Tires.

According to a British exchange; English racing men are now employing what are practically solid tires. To be up to date, it says, a racer's mount needs to be fitted with 1 inch or even $\frac{3}{8}$ inch single tube tires, straight forks and short head. The result is the rider gets almost, if not quite, as much vibration as if riding a solid tire.

He Ought to Know.

Chicago, March 29, 1901.

Waltham Mfg. Co.,

Waltham, Mass.

Gentlemen—It may be of interest to know that during nearly fifteen years of cycle riding on the road and on the racing path, in which time I have ridden scores of wheels, all of which acknowledged to be high grade, and most of which were specially built, I never possessed a bicycle as easy running and as entirely satisfactory as the Orient which I rode all last season, and in my many visits to bicycle factories as editor of bicycle publications, I have never seen as careful workmanship employed, or better material used.

It gives me pleasure to be in a position to give this unsolicited and well-merited testimonial.

GEO. K. BARRETT.

Why?

Because he has been a prominent rider in the past, a prominent bicycle editor of the present, and a prominent investigator always.

But this was last year's experience.

What would he say after riding the new Orient Milaminit?

WALTHAM MFG. CO.,
WALTHAM, MASS.



Low Rates to the South.

Excursion tickets at reduced rates are now being sold by the Chicago, Milwaukee & St. Paul Railway to the prominent resorts in the South, including Jacksonville, Fla., Mobile, Ala., New Orleans, La., Savannah, Ga., El Paso, Tex., which are good for return passage at any time prior to June 1st, 1901. Information regarding rates, routes, time, etc., can be obtained on application to any coupon ticket agent of the Chicago, Milwaukee & St. Paul Railway. ***

THE CHANCES

you take by equipping your machine with a weak, flimsy coaster brake

ARE GREAT.

Don't run the risk.

THE ACME COASTER BRAKE

will be to your bicycle what the air brake has been to railways.

IT INSURES SAFETY.

Booklet tells why.

ACME COASTER BRAKE CO.,

Rochester, N. Y.

New York Office, 99 Chambers Street.

As Starley Views it.

The old question of crank versus lever driving for bicycles, which was years ago settled in favor of the former, comes in for considerable attention at the hands of J. K. Starley, the celebrated English maker.

"All things considered," he says, "I think the cycle as we have it to-day is about as perfect as it can be. There has always been throughout the history of the bicycle a strong desire to overcome the 'dead centre,' and men who have been continually seeking for some kind of mechanism which will give the rider a greater power.

"Personally, I believe that if you could by some mechanical contrivance enable the rider to exert a force throughout the whole pedal circle, instead of using one-third of the circle, as now, there would be no advantage. You would press the pedal three times as long and get three times the result; and in that respect there would be no loss and no gain, for it is obvious that if you pedal three times as long you should get three times the result.

"The only principle to be aimed at, it seems to me, is, either in gear or length of pedal, to obtain the motion which is as nearly as possible approximate to one's natural movement when walking."

Named After the African Explorer.

After considerable discussion, the point being obscure, it has been decided that the Stanley Cycling Club, the London organization under whose management the Stanley cycle shows have been held for many years, got its name from Henry Stanley, the African explorer, who was in the zenith of his fame just at the time the club was formed.

Why Hills are Hard.

It is notorious that the weak point of a bicycle is developed on a steep hill. There the amount of power required to drive it, instead of being in direct ratio to that which the rider is able to apply, is almost exactly the reverse.

In explanation of this anomaly a rider who appears to have done a lot of figuring says that the bicycle is a most extravagant consumer of energy when such work has to be done. He states that on a hill of 1 in 8 a cyclist of 120 pounds weight, with a 30 pound cycle and 66½ gear, has a slope resistance of 19 pounds to overcome, and to climb the hill he will need to exert a pressure of 100 pounds at the working end of the mechanism. Then he shows that on a weight testing machine an ordinary man can easily exert a pressure of 280 pounds with his foot; yet on the 1 in 8 slope he must strive his utmost to produce the 100 pounds necessary to drive the machine up the hill, and frequently he is quite unable for the effort. The explanation offered is that the rider only gets in efficient pressure for a fraction of the whole of each stroke.

Not Sold by Weight.

An English firm has brought out a new machine which it calls the Featherweight. It is what would a few years ago have been termed a road racer, as it is stripped of everything non-essential. In this form it comes out at twenty-two pounds. This is very light, but not unprecedentedly so; certainly it is a little overdoing it to term it a "marvel." For this machine the tidy little sum of \$125 is asked!

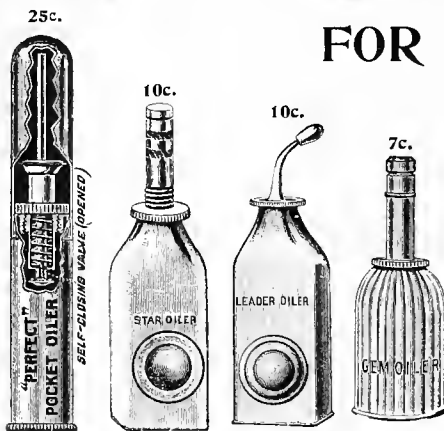
For Shop Floors.

A recipe for a wash for disinfecting the walls and floors of shops is given by a French journal. It consists of 10 litres of water in which are dissolved 1,000 grams of chloride of zinc with 30 grams of hydrochloric acid. The hands should not be dipped in it.

**NEVERLEAK
STOPS LARGE PUNCTURES.**

This is the only fluid that can be legally used in pneumatic tires. Suits now pending.

BUFFALO SPECIALTY MFG. CO.,
Buffalo, N. Y.

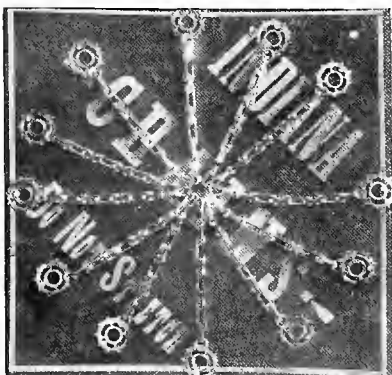
**FOR 18 YEARS**

we have made a specialty of the manufacture of OILERS. We make a careful study of every detail and are constantly improving our oilers in every way possible. We make oilers for practically the entire trade, and are confident the QUALITY of our goods cannot be equaled at the price. Only the best quality of elastic metal is used. The washers are of specially selected (not scrap) leather. The threads are well made and tight, not stamped on body of oiler. The soldering is tested under hydraulic pressure, etc., etc. Every oiler made by us bears our name. Beware of cheap imitations. A rider's appreciation of a first-class oiler in his equipment is more than worth the slight extra cost.

CUSHMAN & DENISON, Mfrs.,

240-242 W. 23d Street,

NEW YORK.

**INDIANA'S NEW CHAIN.**

If you want the best, write us quick. Your wheel will run easier with our chain. Why? Because every link is right. After all, it is not so new. We have been making it nearly a year. Know what we are talking about and guarantee satisfaction.

EVERY LINK IS RIGHT.

Send 26 cents for Feb. \$1.80 per dozen, on card.

INDIANA CHAIN CO.,

- Indianapolis, Ind., U. S. A.



The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., April 25, 1901.

No. 4

PURCHASED THE PATENTS

Those Covering Record Pedals Change Owners and Litigation is in Prospect.

The Record pedal and the patents thereon, which changed the pedal fashion of the world, have again changed hands.

They are now the property and possession of the Bridgeport Gun Implement Company, of this city.

Two weeks since, the Bicycling World gave an intimation of the deal, which it is now possible to state in further detail.

The purchase includes not only the name and the patents, but the stock, machinery and all other rights and property. In connection with their Star and Bridgeport pedals, the manufacture of the Record will be continued, and there is reason for stating that the Bridgeport people contemplate using the patents in an attack all along the line.

H. W. Wyman, of Worcester, Mass., was the other party to the transaction. Mr. Wyman, as will be recalled, purchased the patents and stock from the assignee of the defunct Union Cycle Manufacturing Company, of which during its life he was a sponsor, and which marketed the pedals under the title, the Record Pedal Company. It was stated that Mr. Wyman designed making the pedal on his own account, but the sale to the Bridgeport Gun Implement Company effectually disposes of that report.

One of the interesting outgrowths of the affair is that it requires the American Bicycle Company to pay a royalty of three cents per pair on all pedals of the Record type which it uses or produces—an unlooked for contretemps. It seems that when the A. B. C., with its bottom bracket patent, charged on the Union Cycle Manufacturing Company, the Union people executed a counter stroke by bringing the Record pedal patent to bear. As a result, it is generally understood that a truce was effected, on the basis of an exchange of licenses, the royalty on the one "stand off" the royalty on the other. The failure of the Union Company, however, left the A. B. C. with a bag to hold.

Relay Co. was Sold Twice.

Although the Relay Mfg. Co., Reading, Pa., has ceased to exist as a cycle manufacturer, and the machinery, tools, etc., have been sold and delivered, its affairs still afford ground for litigation.

An action has been brought by the Baldwin Automobile Co., of Providence, R. I., against the Relay Co. to recover on a breach of contract, damages being placed at \$10,000. The case came up for trial before Judge Endlich, at Reading, last week. The Baldwin Co. claims that they made a contract with the Relay Co. on January 18, 1900, to purchase all the machinery, tools, etc., of the Relay Co., for which the Automobile Co. was to pay \$2,500 in cash and \$2,000 of the preferred capital stock of the Automobile Co. The consideration was to be paid after thirty days, when a bill was to be rendered by the Relay Co.

No bill was rendered and before the thirty days had expired the Relay Co. sold out to other parties. The Automobile Co. now brings suit to recover \$10,000 damages for the violation of the contract of the defendants, who sold out for \$5,000, though the machinery, etc., were worth much more.

Receiver Objects to Rood's Claim.

At Middletown, Conn., last week, a hearing was had on the remonstrance of Receiver Betts, of the Keating Wheel and Automobile Co., against the acceptance of the report on claims made by the Middletown National Bank. Mr. Betts personally objected to the claim made against the company by C. E. Rood, of Springfield, Mass. He stated that this claim, amounting to \$190,000, was received by the committee on March 1. The claim was not itemized and he had not had sufficient time to thoroughly examine it.

Mr. Rood and his attorney objected, but the court sustained Mr. Betts and refused to accept the report of the committee and ordered that a full and complete itemized report of the claim made by Mr. Rood be made and that the same be filed with the committee within three weeks. The committee was instructed to hold a hearing on the amended report within one week thereafter and to report to the court as soon after as possible.

The Boyce Cycle Pump Co., of Chicago, Ill., has been legally dissolved.

SURRENDER OF SANGER

After a Brave Fight, his Obligations Bear him Down and he Faces Bankruptcy.

After a long and courageous struggle to avert the inevitable, the Sanger Handle Bar and Plating Co., of Milwaukee, Wis., are about to go into bankruptcy.

The company has been pinched for funds for some time, but did not despair until a few days since, when the state of affairs became such that the larger creditors were called in and the fate of the company placed in their hands.

After careful consideration they deemed it best for the protection of all creditors that the Sanger Co. be put into bankruptcy. In accordance with this decision a petition in voluntary bankruptcy is now being prepared and will be filed in a few days.

No statement of assets and liabilities is yet available.

O'Dea Gets Damages.

William O'Dea, the Columbus (Ohio) minor whose finger was mashed and broken in a punching machine at the works of the Admiral Lamp Co., has been awarded \$300 damages therefor. O'Dea, through his "next friend, John O'Dea," brought suit against the Admiral company, claiming that the accident was due to the fact that the punch press was not in good order.

The case was called some time ago and dismissed because the bill of particulars was not specific enough.

End of the Union.

Last week the balance of the machinery of the old Union Cycle Mfg. Co. was removed from Highlandville, Mass., to Worcester. The plant was a small one, and at no time was the output of cycles very large; but the machines were of the superlative class, and occupied a large share of attention.

The French Government has promulgated a new tariff for New Caledonia. Under its terms bicycles will in future be subject to a duty of 20 francs (\$4) each.

TO TRADE WITH FRANCE

Our Consul at Limoges Gives the Information Oftenest Asked for

The impetus that has recently been given to exportations from the United States, and the zeal that American exporters are showing to increase their trade with foreign countries, make necessary certain suggestions for their assistance, says W. T. Griffin, the United States Commercial Agent at Limoges, France, in a report made public by the Washington authorities.

This consulate—and it is presumed other consulates also—is flooded with requests from American citizens for information and aid in extending their trade.

The parties making these requests are, as a rule, entirely unfamiliar with the country and its requirements, and if the consul makes any suggestions that are contrary to the manufacturer's preconceived idea his word is considered unsatisfactory.

It is pleasant to give satisfaction to those who ask, and doubly so when the interests of one's country are advanced. It is therefore respectfully suggested that American exporters desiring to extend their foreign business comply with the following conditions before they take the trouble to send catalogues, etc., to European countries:

The American exporter must understand the wants of the market he desires to enter and supply before he can find purchasers. It is no proof or reason that because a certain article finds a ready sale in the United States it will sell abroad.

Every catalogue, business card, etc., that is to be distributed in France must be in the French language; weights and prices must be expressed according to the metric system and in francs. No dealer, either wholesale or retail, is going to translate any documents or push American articles unless he is richly paid for the trouble. An ounce, bushel, yard, pound and mile carry no meaning to the ordinary Frenchman, and he would prefer to pay more for an inferior article described in familiar terms and language than to bother trying to decipher a paper in an unknown tongue and with unintelligible weights, measures and currency. Not only should the French language be used, but catalogues must be attractive to insure their being read.

The appearance of packages has much to do with selling merchandise in France. There is no country in the world whose people are more particular as to the manner in which food, and in fact everything, is presented to them than the French. It is certain that many excellent articles fail to be accepted through faulty and careless or slovenly packing.

Any deviation—even an unintentional deviation—in the shape, style or color of the wrappings, or any difference in the goods de-

livered from those shown, is very apt to awaken suspicion in the mind of the foreign purchaser, although no wrong may be done or intended; exact conformity to samples, on the other hand, always inspires confidence.

When presenting bulky goods, such as hardware, agricultural implements, wood, tools, etc., the seller should be careful to give the purchaser a definite idea as to the probable costs. If a French buyer can know that the merchandise will cost so many francs per 100 kilograms in New York, and that the freight to Havre, Bordeaux, Marseilles or any other French port will be a certain sum on a given date, with an average price for a year, he is enlightened on the very points that he wishes to know before considering the purchase. Sales may be made more readily in this way than otherwise.

The exporter is advised to state that the price given includes cost, freight and insurance. It is also wiser for the seller to insist that the buyer shall pay the customs dues, dock dues and inland charges (if any), because the consignee can make better terms than the foreigner can ever hope to make.

There is published in France a commercial directory called "Le Bottin." Copies of this book may be found in the libraries of nearly all large American cities and in many of the important hotels in the United States. "Le Bottin" gives names and addresses of manufacturers, dealers and merchants in the several departments of the country, which are classified according to trades, professions, etc., in the various cities and towns of France. Exporters will find this an aid in trying to extend their foreign business; if they care to examine this directory they can easily find out the names of persons apt to be interested in their line of trade, and if they desire further information concerning the French dealers the consul of the district in which these people live can readily give any information about them that he may be able to obtain.

The solvability of merchants, manufacturers and dealers in France is perhaps more difficult to ascertain than in the United States, but general data can be got in most instances without much trouble. All banks in France will give information as to any house or firm required for a small fee—from 25 to 75 cents for each person.

If the foregoing suggestions are followed, time will be saved to the exporter and consul and much useless correspondence avoided.

Satisfied With the Schedule.

So satisfactory has been the working of the Boston Cycle Repairers' Association that it enters on its third year of operation with a practically unchanged schedule of repair prices. The exception is coaster-brakes. The prices for fitting these is now placed at from \$6.50 to \$7.50. Secretary Pattinson of the association writes the *Bicycling World* that a great deal of good was accomplished last year, and that changes in either policy or prices are unnecessary.

WHY THE LIGHT WENT OUT

If Brown Hadn't Defaulted at \$50,000 Company Would Have Kept It Burning.

More light on the affairs of Brown & Smith, the Newport (Ky.) lamp makers, is being thrown as a result of the winding-up proceedings now being taken. In particular the relations of Frank Brown, the defaulting cashier of the Newport Bank, with the firm in which he was the senior partner, are coming to the surface.

At a hearing in Cincinnati, O., last week, before Master Commissioner Wolff, Thomas H. Collin, who was bookkeeper for the firm up to May 10, 1900, was the first witness. He stated that up to that time Brown had advanced \$11,500, which was expended in the purchase of machinery, stock, advertising, wages, etc. The lamps manufactured during his time were a failure, the greater number being returned.

Louis Ducase, brother-in-law of Brown, testified that over three hundred of the first lamps made, at a cost of \$3,000, were thrown into a scrap pile. The improved lamp, however, he stated, was not only the best bicycle but the best automobile lamp that is made.

Brown at first put up but \$3,800, but the venture proving such a failure, he continued to advance until he had paid in a total of \$18,500 and \$500 additional for securing patents on the lamp in foreign countries. The agreement was, he stated, that Brown was to receive back in the profits of the lamp all that he had expended before Smith was to receive anything except \$25 per week in salary.

The bank, which is upholding Brown's interests, claims he received nothing under his contract, as about the time the lamp was marketable his trouble commenced with the bank, and the latter claims the sole right to all that Brown advanced.

It was stated that the firm would have turned out fifty thousand lamps this year but for Brown's trouble, as one firm in New York had ordered eight thousand lamps to be delivered at the earliest date. A stock company was organized in Chicago shortly before Brown left, with a capital of \$50,000, to manufacture the lamp, the Newport firm to receive a royalty on every lamp sold.

Coaster Brakes Becoming Standard.

Reports of the sales of coaster-brake machines are beginning to bear out the expressed belief that such wheels are destined to become the standard pattern. For the average rider there can be no question that coaster-brakes are just the thing. Fixed gears may be more suitable for some riders, but the number of the latter is almost certain to dwindle as the coaster-brake becomes better known.

WILMINGTON IS WIDE AWAKE

Its Dealers get Together, Adopt a Tariff and Plan for Mutual Betterment.

Few towns were more in need of a standard in repair prices than Wilmington, Del. The slump has been keenly felt by the trade there, and in spite of the enforced retirement of a number of dealers and repairers those remaining found that the business to be divided was all too small.

The result was that a go-as-you-please policy was followed to a considerable extent, especially in the matter of repairs. Prices were forced down to a point where there was little or nothing left for profit. The formation of a repairers' association, as exclusively noted a few weeks ago by the *Bicycling World*, therefore promised a welcome change from the methods in vogue, and already the pleasurable anticipations entertained are being borne out.

A committee was appointed to prepare a schedule of repair prices, and to it the signature of practically every repairer in the town was obtained. The list is as follows:

T. C. Bradford,	John H. Minnick,
E. J. Chapman,	A. E. McDaniel,
V. V. Harrison,	Howard McDaniel,
S. E. Hart,	V. R. Pyle,
W. H. Hartlove,	Daniel Ross & Son,
Hickman Jackson.	H. W. Vandever Co.

The schedule of prices does not vary materially from those adopted by other associations. Nevertheless, they are in a number of cases considerably in advance of those charged in the past, and much good is expected to result from this increase.

The prices follow:

Cutting down frame.....	\$6.50 to \$7.50
New centre bar.....	\$3.00, \$3.50 and \$4.00
New top bar.....	
New lower bar.....	
New head.....	3.00
New stamping for head.....	2.50
New fork crown.....	2.50
New fork sides.....	\$1.50 to 2.50
New fork stem.....	\$1.50 to 2.00
New fork ends and enamelling.....	\$1.00 to 1.50
Straightening forks.....	.50c. to 1.00
Straightening frame.....	.75c. to 1.00
Putting in hanger and enamelling frame and forks.....	\$9.00 to 10.00
New rear stays.....	\$3.00 and 4.00
New rear sprockets.....	1.50
Putting on front sprockets.....	\$1.50 to 4.00
Repairing chain.....	.25
Straightening cranks.....	.25c. to 1.00
Welding crank ends.....	\$1.25 to 1.75
Putting on rims, crescent shape, old spokes.....	\$2.00 to 3.00
Filling up rims and cementing on tires.....	.50
Cementing ordinary tires.....	.25
Putting in spokes, 25c. first; 10c. for each additional.....	
Making new cups and cones.....	\$1.00 to 3.00
Making new crank axles.....	\$1.00 to 2.50
Brazing on sprocket or spider, \$1.50 to \$2.00 nickelled.....	
Making bolts and nuts, axle nuts, 10c.; crank hanger.....	.75
Making front axle, 35c.; rear axle.....	.50
Nickelling all parts.....	6.00
Enamelling, black, \$3.00; colors, \$3.50;	

striped, \$1.00; rims, \$1.00 extra.....	
Cleaning bearings and bolting chain.....	1.00
Cleaning chainless wheels.....	2.00
Putting on coasters, Canfield and E-Z.....	5.00
Putting on coasters, Morrow, Acme, Wyoma and New Departure.....	7.00
Cleaning coaster-brake.....	.50
Repairing single-tube tire.....	.25
Repairing double-tube tire, M. & W.....	.50
Repairing Clincher tires.....	.35
5c. for each additional puncture.....	
Vulcanizing bicycle tires, 75c.; with valves.....	1.00
Putting in metal valve.....	.50
Putting in G. & J. valve, 50c.; reinforcing, extra.....	.25
Putting Schrader in stem.....	.25
Putting Schrader in valve and stem.....	.50
Splicing valve.....	1.50
Splicing bars.....	2.50
Fitting crank keys.....	.25
Lengthening saddle post, 75c.; with expander.....	1.00
Brazing handle bars, 50c.; \$1.25 nickelled.....	
Putting in pedal pins.....	.50
Putting in new wheels.....	5.00
Putting on cranks.....	1.00
Furnishing and putting on grips, plain.....	.25
Furnishing and putting on grips, best leather.....	.50
Putting in M. & W. tubes.....	.25
Putting in M. & W. tubes in single-tube casing.....	.50
Putting in Never Leak.....	.50
Lacing chain guards.....	.50
Lacing mud guards.....	.50
Lacquer on spokes, each wheel.....	.50
Saddle nuts.....	.10
Furnishing crate and crating bicycle.....	1.00

Rack and Lock Combined.

Owing to the unusual prevalence of bicycle thieves in Minneapolis, Minn., riders there are in a mood to welcome anything that will promise them protection. At this opportune moment a Minneapolis inventor of some note, C. W. Carter, 6 Lake street East, has patented a combination lock and bicycle rack which is said to just fill the bill, and preparations are being made to market it.

There are four dial or combination wheels operating independently of one another on a shaft, outside of the machine, and the same number within the machine, which are worked by a mechanism upon the plan of the tumblers in a safe, but pins are used instead.

The wheelman wheels his bicycle up to the lock and places the front or rear wheel in the jaws of the lock. He deposits a cent in the slot, adjusts any combination of numbers he wishes from the numbered figures on the outside wheels, such as 1, 2, 3, 4, or 7, 7, 8, 8, for example, then pulls a little lever and the bicycle is locked securely. Then he revolves the wheels, disturbing the combination, and no one can unlock that combination but the man who has the combination of figures.

When the rider again returns for his wheel he again revolves the little wheels of the combination until they read as he set them when he deposited his penny. He pulls the lever back, the jaws that held the wheel of his bicycle fast are opened and his wheel is released. Another rider takes his place and repeats the performance, and his wheel is as safe from the festive bicycle thief as though it were in one's own care.

MOTOR BICYCLE IN WAR

It was Mimic Warfare but the Bicycle Performed Heroic and Eye-opening Service.

For the first time in history a motor bicycle was employed in military service during Easter week, and gave such a grand account of itself that it cannot fail to impress the thoughtful. While the service was in the line of "play soldiering," it detracts little from the merit of the performance.

The occasion was the English manoeuvres by the cyclists' corps, having for their object the capture and defence of London. H. W. Duret was the man who guided the motor bicycle. The merit of his performance may be judged from the fact that while he formed the connecting link between two of the attacking columns his services were finally requisitioned by the commander of the invading force, who was so struck by the work which was performed by the little bicycle that he practically commandeered its services.

It is difficult to give an idea of the work which was successfully performed, but an idea may be formed when it is stated that on Friday it covered ninety-five miles, on Saturday forty miles in pouring rain and over very heavy roads, and seventy and a hundred miles respectively on the two following days. During all of this time Duret states that the machine was not touched, except for lubrication and replenishment of the gasoline. Despite the muddy roads, the motor was entirely unaffected, and mud deflectors which were fitted to the machine threw all the worst of the dirt lifted by the wheels straight back on the road.

It should be remembered that this bicycle was used in conjunction with cycle mounted forces, so that it was absolutely imperative that really fast means of communication should be available; that the bicycle was equal to the task, however, was demonstrated on one urgent occasion, when fourteen miles were covered in forty minutes, and on another when thirty-six miles were traversed against time, whilst the cycle mounted column did fifteen.

Will Need Better Roads.

While there is little realization of it as yet, it is a fact that the incoming of motorcycles will have the effect of emphasizing the necessity existing for better roads.

Owing to the greater speed of the motor-driven machine, consequent upon its regulation by a lever, inequalities of surface will be more keenly felt than now. The increased weight of the machine and the greater vibration due to the working of the engine will, of course, add to the sensitiveness. As a matter of course, the rider will demand both better roads and better machines, and the almost certain result of this hammering will be an improvement in both.

As to Catalogs for Russia.

"Several American exporters, desiring to reach the trade in their respective lines in Russia, ordered catalogues and other advertising matter printed in New York in the Russian language, and shipped them to Russia, to be addressed and mailed by agents in Russia," writes W. R. Holloway, United States Consul-General at St. Petersburg. "The catalogues were refused admission, however, because they had not complied with the Russian laws governing the censorship of the press, which require that everything printed in the Russian language must receive the approval of the chief of the central committee of foreign censorship before it can be admitted or circulated in Russia.

"American exporters who desire to circulate advertising matter printed in the Russian language in Russia must therefore address a petition to His Excellency Count Alexander Mouravieff, chief of the central committee of foreign censorship, describing the character of the publication and its purpose, to which must be attached two copies of the publication for which admission is desired, praying for permission to admit and circulate the same in Russia. To this petition must be attached two Russian revenue stamps of the value of 1.60 rubles (84 cents), preferably two of 80 kopecks (42 cents) each. This petition will be more likely to receive immediate attention if written in the Russian or French language, though the same would be translated and forwarded if sent

direct to the United States Ambassador or Consul-General at St. Petersburg, if accompanied by the amount necessary to purchase the revenue stamps.

"Incendiary matter has been circulated in every form in Russia; hence the authorities censor everything that is printed as rigidly as they did a century ago."

Exporting to the Transvaal.

Under the terms of the proclamation of Sir Alfred Milner the importation of all goods into the Transvaal and Orange River Colony is only allowed after a permit for such importation has been obtained from the military governor of Pretoria or Johannesburg. It is also stipulated that the customs duty must in all cases be first paid. For the present the Transvaal duties will be the same as under the Boer Government. The penalty for violation of either of these laws is confiscation of the cycles plus a fine not exceeding five times the amount of the duty—a fact which exporters will do well to note.

Johnny Bull has a Scare.

Johnny Bull is again a-shiver. The publication of his cycle exports and imports for the month of March is the cause of his "creepy feeling." The exports for the month totalled £44,834, as against £56,567 in March of the previous year; the imports, £26,452 and £16,790, respectively—the greatest month's importations since April, 1900. "Is it another American invasion?" anxiously ask the London papers.

Why the Hollanders Complain.

According to a report of the United States Consul at Amsterdam, the people of the Netherlands have "no confidence in bicycles that sell there at less than \$40." Dealing further with the subject, he says:

"The trouble with all American bicycles is said to be that (1) the factories are too far away, while American sundries are different from European sundries, the consequence being that dealers have to keep in stock a great number of the former, or their customers must wait until the pieces come from the United States, which often takes six weeks or longer; (2) freights are always very high for small sundries, but this will now be improved by the parcel post; (3) most American machines are delivered with single tube tires, which are not popular here, so that the merchants have to buy double tube tires at prices ranging from \$8 to \$12, while the manufacturer makes a reduction of only \$5 for the single tubes; (4) American manufacturers prefer sight draft against bill of lading, while European manufacturers give credits of from three to six months, the result being that during last season, more German bicycles were sold here than cheaper American grades.

Prices for next season are:

First class machines.....	\$60 to \$80
Second class machines.....	40 to 60
Chainless machines.....	80 to 100

Chainless machines, as well as bicycles with free wheel, are not popular here. Bicycles are dutiable at 5 per cent.



Fisk Tires

"Give a dog a bad name" and it will cling to him forever.

Let a tire have one bad season, and no matter how good it is in time to come, that off season will ever be laid up against it.

FISK TIRES have never had an off season. They have always been high grade, dependable and lasting in service—no more positive proof of merit could be desired.

FISK TIRES stand first in the estimation of all riders and dealers who have ever had any experience with them.

FISK RUBBER COMPANY, Chicopee Falls, Mass.

BRANCHES: SPRINGFIELD, NEW YORK, 99 Chambers St., SYRACUSE, BUFFALO, DETROIT, CHICAGO, 36 Dearborn St., SAN FRANCISCO, 159 Montgomery St.

REPAIR DEPOTS: 105 Reade St., New York, N. Y. 168 Oliver St., Boston, Mass. 1015 Arch St., Philadelphia, Pa.

HAWKINS
1123 BWAY



In which is Incorporated
"The Wheel" and the "American Cyclist."

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, APRIL 25, 1901.

Rain, rain, go away;

If you don't, there'll be the devil to pay.

The Maintenance of Price.

That it is possible to prevent price cutting and to not only check it when attempted but to make the cutter suffer we have long maintained.

That more prices are not maintained is entirely the fault of those most concerned, the manufacturers of the particular articles involved. They lack the moral strength necessary for the application of the effective remedy. They are content with words—that is oral or written threats or protests—when it is action, not words, that is needed and required.

When we say "action" we mean legal action—action of the sort taken by the Eclipse Mfg. Co., which we have several times cited.

It requires courage to undertake action of the sort, but the effects of a few proceedings of the sort are so wholesome and so far

reaching that the very force of a few examples of the kind cannot fail to exert a beneficial influence on the whole trade.

Practically all manufacturers and merchants agree that price cutting is demoralizing; most of them make a pretence of preventing it. Usually, sad to say, it ends with the pretence.

In dealing with the subject last week we remarked the Bissell carpet sweeper as one of the articles on which price is maintained. In another column we show just how it is maintained. The Bissell manager who contributes the article goes deeply into the matter, and presents a most intelligent and instructive discourse. But, after all, it contains little that is strikingly new or that will not occur to any ordinary individual who fixes his mind on the subject.

To those who have not so fixed their minds the article will suggest a line of action and make clearer their duty to those price-respecting merchants with whom they deal.

Boiled down, the Bissell policy requires substantially that their patrons shall hold fast to their agreements, in which policy there is nothing unusual. The Bissell people, however, go further and enforce the agreement, not with stereotyped threats, but by action. Offenders are haled to court and enjoined from repeating the price-cutting tactics that lead to unfair competition and demoralization.

By no other means do we believe it possible to prevent or check the evil. It is not a pleasant procedure, but the good of the many requires procedure of the sort against the few. The manufacturer who determines to set himself resolutely against the price-cutter must prepare for it, or his effort will fail of its purpose.

The Bissell manager brings rulings of the English courts to his aid, and it is timely to add that such precedents are of effect in this country. They hold both hope and strength to the American who sets his price and dares maintain it. May his numbers increase with the days!

The Ounce of Prevention.

Just about this time of the year complaints begin to roll in from dealers that the new machines have not been properly assembled.

Troubles of all kinds begin to develop. Usually they are of a trifling nature, or at least they are seldom serious, and the actual loss entailed is small.

Nevertheless, this does not alter the fact that they are extremely annoying, as well

as of greater consequence now than they would be at any other time.

At the beginning of the season all machines, even those of the highest reputation, are more or less on trial. If anything goes wrong with them it is magnified out of all proportion to its real character. Friends of the machine have their faith shaken, and enemies take advantage of the opportunity to drive home any allegations they have made or are making concerning them.

There is a cheapening process going on, they say, and the improper adjustment of bearings, the carelessness evident in the finish, the bad fitting of tires, although really having nothing to do with it, are alluded to as proof of the contention.

A little extra care in the inspection of the early machines will go a long way toward avoiding the troubles referred to. Things will come all right later, of course, but the important part is to have them do so at first.

The dealer can do much to keep the faulty machines from getting out in the shape they reach him. An inspection in his repair shop will frequently save him a world of trouble, and not a slight expense.

The matter is one well worth looking into, and no better time for it could be found than right now.

Where Arguments Fail.

For the best part of a decade now, gears have been steadily rising.

The movement had its incipency in the coming of the pneumatic tire. Fresh impetus was given it by the wonderful strides the manufacture of light machines made. The finishing touches were communicated by the perfecting of the bicycle on slightly heavier lines—its present form being the sign manual of that perfecting.

Save for the early portion of this period notes of warning have been sounded consistently and persistently. It was pointed out that the increase of gears, fascinating although it was, could not but have a bad effect on cycling.

How absurd it was, said these critics, to single out the weak points of the bicycle and make them still weaker. Hills and head winds affected all riders, but particularly those who went in for pleasure solely or who were deficient in the strength required to successfully combat such formidable opponents.

What was needed, they continued, was lower gears, not higher ones. The poorest rider could get along comfortably on the

level or down hill, or against the wind, no matter what the gear; the sticking point was when these conditions were reversed.

Then, if ever, a low gear is desirable, almost necessary. Even if something had to be sacrificed on the other side, if a gear slightly lower than was liked for down grades were employed, it would no more than even things up.

But these criticisms have never had the slightest effect—unless the fact that gears have remained nearly stationary for a year or two is held to be a result of them. Such a construction is not likely to be placed on it.

Riders have gone on using high gears, heedless of the admonitions bestowed on them so freely. Apparently they have liked them. No other explanation carries much weight.

An inspection of the 1901 catalogues and machines throws further light on the subject. They make it very plain that the most that can be said is that gears have undergone no increase this year.

The great bulk of the gears range between seventy and eighty inches. This applies to all classes of machines—racers, roadsters, drop frames, cushion frames, etc.—and to the options as well. Occasionally a gear above eighty is found, and about as often one below—the latter almost invariably being among the options.

Furthermore, the majority of the gears are nearer eighty than seventy. Seventy-sevens are great favorites. They are found on an unusually large number of machines.

From this it is plainly to be seen that the miniature crusade against high gears has had absolutely no effect. Either the arguments urged against them fall on deaf ears or they do not reach the ears for which they are intended.

Which is it? Can it be that the anti-high gear movement is based on false premises? Are riders really better suited with such gears as those mentioned? Do they know better than their critics which give the best results?

Or is the present condition of affairs due to the fact that makers wait for a demand for lower gears before supplying them, while riders expect the former to make the first move?

The subject is an interesting one, and opens up a wide field of speculation.

The Salesman's Position.

At the first blush it would seem that the salesman's labors had been wonderfully

lightened by the changed conditions governing the retailing of bicycles.

Nowadays the prospective purchaser knows his book. He neither expects nor desires kindergarten information about the various machines he wishes to examine. Consequently the salesman's volubility is repressed and his best efforts are negatived.

The purchaser asks questions, of course. But a great many of them have reference to points that are quite fully covered by the catalogue, and it almost seems as if the salesman could be dispensed with and no harm result.

He cannot, as formerly, start in with a breezy dissertation on the merits of the machines under examination, and by dint of positiveness, persuasiveness and plausibility convince his auditor and clinch the sale right then and there.

He has to proceed on quite different lines. If the customer has practically made up his mind to buy the salesman's machine, the latter is very likely to damage his case by talking too much. A word here and there, now of assent, again a bit of information, is all that is necessary.

On the other hand, the customer may not be quite convinced, and while not actually inviting a confirmation of his opinions would regard it as very welcome. If the salesman is sagacious enough to take advantage of this opportunity he will frequently attain his purpose with little trouble.

The absolute necessity that exists of sizing up the customer and of talking to him in just the right manner increases instead of diminishes the difficulty of the salesman's task.

A ready flow of language will no longer serve the purpose. Quality rather than quantity of talk is what is called for; and, this being so, there is more room for a slip-up on the part of the salesman than formerly existed.

Where Honor is Easy.

It begins to appear that the sense of honor has become blunted in A. B. C. officialdom. Its fake bureau is again in active eruption, but apparently its policy of "fooling the people" and faking the press doesn't concern the titled gentlemen, although the head of all came from Virginia, where honor is supposed to grow on trees.

Not content with circulating a fraudulent indorsement of A. B. C. bicycles by a mythical doctor, the fake bureau is attempting to arouse "society" by mounting foreign royalty on bicycles.

This late fake recites that "For the past dozen years or more the Royal Edward has been gradually merging toward corpulency, and has tried as a preventative every conceivable form of outdoor exercise, but with little satisfaction. He devoted a goodly spell each day to private indulgence in fencing, driving, walking and riding, but has derived greater benefit from cycling than from all other kindred sports. Every day the King may be seen spinning along on his wheel in the private grounds surrounding Marlborough House, and seems to be perfectly at ease on his bicycle. One of the most notable men in England to emulate the King is Lord Salisbury. He has become an ardent wheelman, and the aged Premier has received permission from the King to ride in the royal inclosure at Marlborough House. Lord Salisbury is usually attended on his rides by his daughter, Lady Cecil. With such people to lead the way in matters of taste, the bicycle is bound to regain its hold among the people of fashion."

We are not yet ready to believe that the bicycle business has fallen to the level of the patent medicine quack.

In spite of the backwardness of the season, due to the miserable weather prevalent over the greater part of the country, there is undeniably a greater interest in cycling displayed than for some years past. It is too early to determine whether this will result in a corresponding increase in the sale of new wheels. But, whether it does or not, it is a good sign, and one which demonstrates conclusively that wheeling still has a strong hold on people.

Really, this is dreadful, doncherknow! After the joyful cry that the world had tired of what the English cycling papers with one accord called "American rubbish," England took more of it last month than for a year previous. Is it possible, after all these years, the English merchants are so childish they don't know "rubbish" when they see it, and when it is pointed out to them by their "thick" (American version) editors?

The employment of a motor bicycle in the English military manoeuvres points to a field of future usefulness rich in possibilities. The work which the speedy little vehicle performed, and which is detailed in another column, must impress even the most phlegmatic.

HOW TO PREVENT PRICE CUTTING.

**One Who Prevents it Details His Methods and Demonstrates that it Can be Done—
Why Prices are Cut and Why Those Affected Make
Feeble or Insufficient Protest.**

In dealing last week with the matter of price cutting the *Bicycling World* cited the Bissell carpet sweeper as one of the articles the price of which is never tampered with. In line with the remarks then made there has come to hand an exhaustive article on the subject of price-maintenance written by James L. Pollitt, London manager of the Bissell Co.

"For the good that it will do," Mr. Pollitt's paper has been published and circulated in book form by the Ironmongers' Federated Union, and it is a paper so full of sound sense and suggestion that it must profit all in whose hands it may fall.

CHIEF CAUSE OF CUTS.

"For many years past the reckless, not to say utterly selfish, tactics of the retail houses who have adopted cutting as a policy have given to the public a scale of prices that cannot be in any way defended," says Mr. Pollitt. "From any one of our large towns picked at random can be adduced evidence of prices that have threatened ruin to the ironmonger who has been compelled to yield them, and yet which have brought very little satisfaction to a public that receives these prices without a realizing knowledge of their relative values. And in an overwhelming majority of instances such prices are flung to the public by cutting houses who are impelled by no real motive of public benefit nor any real ability to sell more cheaply than wiser men. They are used simply as a means of self-advertisement—advertisement made at the peril of neighboring business men, and always at the eventual cost of the manufacturer whose goods are exploited for this purpose.

RESULTS OF PRICE MAINTENANCE.

"I am convinced by the growth of trade and goodwill that has accrued to my own company in consequence of the adoption of price maintenance as the dominating principle of its selling operations, that the manufacturer of a proprietary article who has sufficient strength of character to impose the necessary controlling conditions upon his goods may be absolutely certain of securing the practical gratitude of at least the great majority of the dealers who have to sell them. Naturally he will find irreconcilables. I have found them myself, but they form a small minority. It is not a reasoning objection that makes them irreconcilables so much as the stubborn objection to join in the general good, and the dread of losing that

incisive yet cruel advertisement that arises out of a cut price.

PROFITS DUE THE DEALER.

"My argument will consequently take the line that any manufacturer of a proprietary article can safely and profitably adopt a system of price maintenance if he does but possess that element of resolution that is necessary to face an occasional check, a temporary loss of business here and there, and perchance to carry through to successful conclusion a defence of his system if it be assailed by one of the irreconcilables. I will go further and say that in my judgment the manufacturer of a proprietary article is almost under the obligation to his retailers to see that his list price is a real one, and that the trade profit—which forms the inducement whereunder the retail trade have bought the goods—is a real profit, and not a fictitious sum that may show 40 per cent in the invoice and 10 per cent under the competitive operations of sharp cutting thoroughfare.

OBTAINING ORDERS BY FALSE PRETENSES.

"This expression of belief is so entirely opposed to the methods that have governed the sale of proprietary articles during the last fifteen or twenty years, or rather to the irregular habits into which the sale of these articles has drifted, that I expect very few of my readers to grasp the idea. I think, however, that the trade has merely forgotten the manufacturer's obligation in this respect through a process of 'drift.' Manufacturers have apparently not recognized this duty, and none of the many sufferers from price cutting have known how to show a manufacturer where his duty or policy lay, and so the drift has gone on until down to a very short time ago price cutting was looked upon as one of the customary but irremediable evils that had attached themselves to the proprietary trade. It cannot be said that we have not heard groans about it, and even protestations to the manufacturer; but I have never heard of any one reminding the manufacturer that the retailer has bought his goods under the implied guarantee that the discounts shown upon the invoice could be earned in the nature of a profit, upon the subsequent sale of the goods, and that his failure to realize that profit upon being placed before the public amounted in effect to the manufacturer having obtained an order by false pretences.

POPULAR GOODS THE CUTTER'S OBJECTIVE.

"Except in those cases where price maintenance is laid as a condition upon the goods, the injury to the orthodox dealer must necessarily rise in connection with all specialties

in direct proportion to the merit of the article, for the greater its name, its selling value or its advertised popularity, the greater is the inducement of the competitive dealer to screw a personal advertisement out of it by knocking its price about.

"Assuming that a manufacturer has the desire to adopt price maintenance, he can do it in one of three ways.

CUTTING OFF THE SUPPLY.

"A stoppage of supply is the oldest plan, and, I think, the least effectual. It is the plan that would commend itself to the man who desires to do good to the sufferers among his customers, and yet who is too timid—or, as some men say, too sensible—to stand upon the blunt system of legal license. The would-be price maintainer of this type has, probably for generations past, given his customers notice that they must not misbehave, and has stopped their supply in the event of misbehavior happening. The plan is faulty, because the culprit who is of the determined type that makes the cutter is usually cute enough to buy a further stock in the name of an accommodating friend, and go on cutting just as merrily as ever. Rather more so than usual, because he has an incentive.

"Still, this plan is a good one for small businesses, in which the source of each order can be fairly traced, or of which the owner has not enough financial backbone to undertake the luxury of law proceedings. And, inasmuch as any advocate of price maintenance must deem it victory to have even the small houses in his ranks, the 'stoppage of supply' plan deserves a place among the ways and means.

THE AGREEMENT SYSTEM.

"About as old as the first named must be the agreement system, whereunder the manufacturer makes a mutual arrangement with his trade, and clinches it by a signed agreement. This, in spite of my own adoption of a third system, I believe to be the best plan that can possibly be adopted; but to be effectual, or to be just to the men who have signed the agreements, the maker must have sufficient strength of purpose to insure that his goods cannot under any possible circumstance reach the dealer who has not become a signatory. The merit of an agreement system is that the proposing dealer becomes clearly aware of the terms before he is intrusted with the goods, and places his admission of the knowledge on record over his own signature. If he breaks the terms the subsequent proceedings are comparatively simple, and as less time is lost in procuring and cementing together the evidence that he had a knowledge of the conditions the in-

jury that his cutting will be causing to neighboring tradesmen is proportionately diminished. In this sense the agreement system does not displace my system of legal license.

THE BISSELL PLAN.

"The third system is the one that I have personally adopted, and it appears to have proved a successful system, for the reason that it is equal to the exigencies of a business in which the factors are largely interested as distributors. Briefly, it is the plan of declaring that the goods are sold solely on condition that their retail price shall not be debased, followed up by a system of taking enough precaution that a dealer cannot obtain the goods without being sure to have a knowledge of the conditions. Provided that the details are thoroughly carried out, it is possible for the protected goods to be distributed broadcast throughout the land through as many successive sets of hands as may be necessary, and yet for the protection to be a sure one.

WHY ONE SUIT WAS LOST.

"The inception of the license system dates from the opening of 1897, when it dawned upon me that the settlement of one of the Incandescent Gas Light Co.'s cases could be moulded in a useful direction. It was one of those cases in which the plaintiffs had sold their mantles subject to a condition that they should be used only upon a burner of plaintiffs' manufacture. It happened that the plaintiffs lost the day because they were not in this particular case able to prove that a clear knowledge of the conditions had been transmitted to the defendant at the time of the purchase, but this momentary reverse merely confirmed in the mind of the judge the broad principle that a condition made known to the purchaser at the time of purchase would be subsequently binding upon him in his disposal of the article.

"In this case, as in all my own subsequent practice, the plaintiffs had imposed their conditions by reason of their position as patentees, and although I have since collected data that immeasurably widen the field of manufacturers to whom price maintenance is possible, I cannot do better than reproduce here the decision of Mr. Justice Wills, for it was certainly the origin of my own efforts in price maintenance, and it also clearly lays down the 'take or leave it' principle that is the actual essence of any price maintenance plan except the system of specific agreement:

COURT'S RULING ON PRICE.

"The sale of a patented article carries with it the right to use it in any way that the purchaser chooses to use it, unless he knows of restrictions. Of course, if he knows of restrictions, and they are brought to his mind at the time of the sale, he is bound by them. He is bound by them on this principle—the patentee has the sole right of using and selling the articles, and he may prevent anybody from dealing with them at all. Inasmuch as he has the right to prevent people from using them, or dealing in them at all, he has the right to do the lesser thing—that is to say, to impose his own conditions. It does not matter how unreasonable or how absurd the conditions are. It does not mat-

ter what they are if he says at the time when the purchaser proposes to buy or the person to take a license, "Mind, I only give you this license on this condition," and the purchaser is free to take it or leave it, as he likes. If he takes it he must be bound by the conditions."

THE VITAL PRINCIPLES.

"Observing that the vital principle of this judgment was capable of universal application, I seized an opportunity offered by my company to introduce a series of new patents which might serve to earmark and identify the new carpet sweepers containing them. We launched these machines as a specific line standing apart from our ordinary business, and from the first day of their issue we said in regard to them:

"We, as patentees, sell you this carpet sweeper under the license that you shall not mark, advertise or sell it at any price lower than is represented by a discount of 5 per cent from its full list."

THE PROPER PRECAUTION.

"The controlling value of this license was naturally in direct proportion to the certainty with which we could prove that the purchaser had been made acquainted with its terms. The success of any manufacturer as a price maintainer will also hinge upon that very point, and it is therefore fitting to explain now how this license can be transmitted.

"I believe that the license cannot be reiterated too frequently. When a case arises for the courts it is of the utmost value to the plaintiff to be able to produce evidence that he has again and again, upon every possible occasion and in every possible place, told the defendant that if such and such an article is purchased it must not be sold at less than such and such a price.

CLOSING THE LOOPHOLES.

"Now, how can we transmit the license?

"Firstly, I would state it in the catalogues, thus setting up the proof that the intending purchaser of the article became aware of the conditions imposed upon it, even when he was considering his purchase.

"Secondly, I would attach it to the wrapper inclosing the article, or, if reasonably possible, to the article itself. In my own practice I do this by means of a paper seal pasted on the paper wrapper in such a manner that it cannot escape the attention of the person 'marking off.' The effect of this would be to combat the defence that is sometimes set up by a cutter who has been bowled out, when he says that the cut was made innocently by an ignorant assistant, and, of course, without his own knowledge.

"Thirdly, the license should imperatively be printed in some place on the invoice, in order that the buyer may not receive and accept the goods without a proper knowledge of the terms, stated in the place that is most likely to reach his personal observation, and at the same time the place where a court of law would expect to find all conditions of sale stated.

"Fourthly, the fact that price maintenance was a condition upon the goods might well be reiterated upon all of the season's announcements to the trade, for it is not only

an honest form of appeal to all the dealers who are believers in price maintenance, but at the same time a warning to its few opponents that they can leave the goods alone.

AFFORDING AN OPTION.

"It stiffens the license materially if the manufacturer is able to add a clause giving his customer an option to return the goods—even at the eleventh hour—rather than take them in on any misunderstanding. I always adopt this plan, and, although I have never known an instance of the goods being returned, the fact that he has had that option leaves a cutting dealer entirely without excuse.

UPHELD BY COURTS.

"The value of this license in its relation to price maintenance was established on March 3, 1899, when, on behalf of my company, I had occasion to take before the Court of Chancery the first case in which a purchaser had bought our goods subject to license, and subsequently sold them below the price provided for. The case was tried by Mr. Justice Kekewich, who immediately granted a perpetual injunction against the defendant, with costs.

"Since that time I have repeatedly consulted counsel upon similar cases, and can find no other opinion than that a license of this character permits no loophole of escape to the infringer, so long as the manufacturer issuing it does but take sufficient precaution to establish his chain of proofs to show that the purchaser had due notice.

"From the foregoing remarks it will be observed that my own company has always taken its stand upon the patents and issued the license as coming from patentees. And from this has arisen the common impression that it is only a patentee who can so protect his goods. But such an impression fortunately only takes us half way into the actual position. The actual fact is that any one can lay a similar condition upon his goods, whether they are patented or not. The man who has a patent or a trademark is in the stronger position, because his goods can be better identified, and because something 'just as good' cannot be substituted for them by a certain class of dealers who may object to the stringent honesty of the conditions.

"But it is good law, none the less, that the maker of the unpatented article has an equal right legally to sell his goods upon conditions. Whether he dares to do so or not is a question of expediency, and in the direction of making it expedient every individual member of the trade has in his hands the power to give assistance. But, looking first at the purely legal aspect, it is certain that if any manufacturer informs his customer at or before the time of purchase that his goods are being supplied solely upon certain terms the customer who takes the goods is most assuredly bound by those terms. It is a contract that would hold, should necessity unfortunately arise, in any court of law, and the main point that a manufacturer in this position would have to look after would be the accumulation of sufficient evidence of the conditions having been made known."

THE SOLAR SYSTEM

How it Produced and Produces the Famous Lamp that Changed the Light of the Cycling World.

Of course, you all know the Solar lamp.

Not to know it is to confess yourself commercially deaf, blind and—yes—"dead."

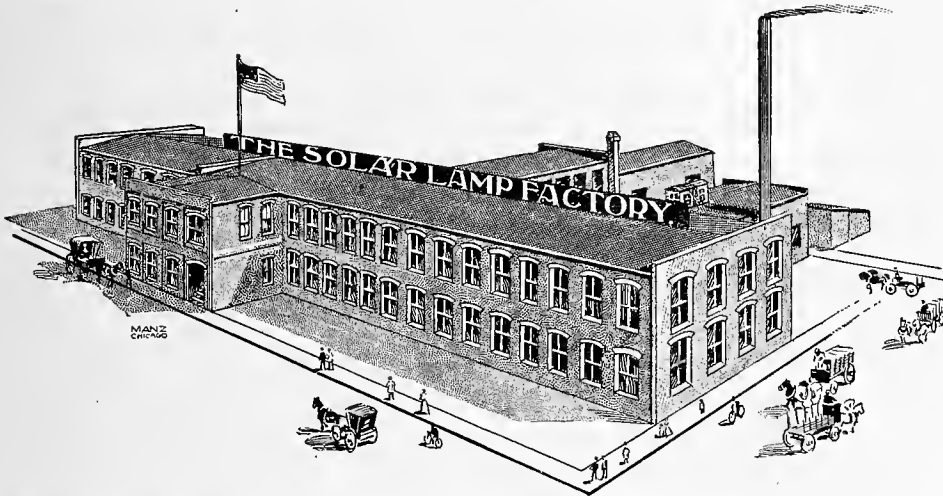
You all know that it comes from Kenosha, in Wisconsin—a short hour from Chicago—and that it is the product of the Badger Brass Mfg. Co.

If you have followed the Solar literature you know that the Solar factory is the only factory built expressly for and devoted to the manufacture of acetylene lamps—ninetenths of them bicycle lamps.

If you are familiar with lamp history and are disposed to be fair, you will readily admit that the Badger people's heralding of

While practically the entire trade is acquainted with R. H. Welles, the treasurer and "outside man," G. H. Frost, the secretary of the company and superintendent of the factory, is not so well known. The fact, however, does not detract from Mr. Frost's ability. He is a brass worker by birth and profession. His father before him was engaged in the business and in that cradle and centre of the brassworking industry, Waterbury, Conn. It was there that Mr. Frost himself "learned his book," to which twelve years' experience in the West has added a considerable volume.

It is under the watchful eye of Mr. Frost that Solar lamps are produced, and it was under his guidance that a *Bicycling World* man was shown just how they are made. While there is little that appears complicated, there is more in the lamp and in its making than the average man imagines. In all there are some 60 parts, involving some 250 operations. The making of the body of the lamp is typical of the methods that finally produce the finished Solar.



the Solar as "the lamp that made acetylene famous" is not without warrant. When they began business, some four years ago, acetylene lamps as applied to bicycles comprised an unknown quantity; for some time thereafter it was a gingery quantity. Dealers and riders alike were disposed to handle it at arm's length and with asbestos gloves, if there were such things. This did not strew the path of the Solar pioneers with roses. They were scoffed and derided, but the Solar people kept everlastingly at it, and with what result you all know. The gas lamp now shines for all, and those who scoffed remain to praise.

While the lamp and its makers are widely known, little is known of the plant that produces Solars, or of the processes by which they are produced.

The accompanying illustration will, however, convey an idea of the factory—a well-lighted, well-arranged structure of buff brick, containing some 20,000 square feet of floor space. The whirring machinery is driven by an engine of 100 horsepower, and when working "all on" the factory gives employment to 200 persons and can produce 1,000 finished lamps per day.

Seated at a punching press, his foot on a lever, and a reel of sheet brass at his side, the workman feeds the brass to the machine, presses the lever, the jaws of the press close, and, closing, "bite out" a circular disk of the metal, which by the same operation is punched into cup shape. This is repeated until the reel is emptied, when the "cups" are passed on to another press, which shears their edges even. Another machine then rounds them into the required globular shape, and the circular holes for the colored side lights are punched out. Girls at quick-acting presses then manipulate what has now become the body of the lamp, holding and turning it rapidly, while the press as rapidly punches out the small ornamental holes that "set off" the finished lamps.

The bodies then go on to a workman at whose side are boxes containing what appear huge emeralds and rubies. He picks up first an "emerald," places it in one of the side holes, arranges it on the machine, and as quick as a wink the green side light, or "jewel," is fixed in its place; the "ruby" similarly and as quickly becomes the red side light.

The body is then ready for the nickelling

bath, into which brass, "rubies" and all are plunged, and in turn polished.

The top, the carbide pot and the other parts follow, and are formed by essentially similar processes.

When he reached the machines which fix the lenses in the door, and on which the edges of the door itself are turned back and rounded from a blank, Mr. Frost remarked admiringly:

"This is one of the cleverest bits of work connected with the lamp."

While the sheet metal parts of the lamp are being shaped, automatic machines are at work, unattended, on lengths of bar brass, cutting, turning and then "spitting out" the water valves, which girls then grind down with emery to make them fit snugly—"the trickiest piece of work about the lamp," commented Mr. Frost.

Girls then do the necessary soldering and riveting, and the lamps are "assembled" and passed into a room where a man fills them with water, inserts a charge of carbide, lights each lamp to assure that they are gas-tight—"a lamp must be gas tight or it is worthless," remarked Mr. Frost—smaller girls then wipe them dry, pack them in boxes, and the Solar lamp as the world knows it is ready for shipment. Incidentally, a railway spur is at the very door of the shipping room, and the shipment is therefore a matter of small moment and great convenience.

Hedstrom to go With Hendee?

No one who has ever examined one of the Hedstrom motor pacing tandems can entertain a doubt as to their merit in the matters of design and construction.

The skill of their designer, Oscar Hedstrom, is now being directed toward motor bicycles. For some time Hedstrom has been working on a machine of this type at the Middletown, Conn., factory of the old Worcester Cycle Mfg. Co. The initial machine is now nearly completed, and it is said to be a radical departure from existing patterns. The motor is of the gasoline type, and chain driving is employed. It is said to be exceedingly simple.

It is understood that Hedstrom is building the machine for the Hendee Mfg. Co., Springfield, and that he will hereafter be identified with that concern in the manufacture of motor bicycles.

Orient Catalog Originality.

Between transparent covers of white, with lettering of purple and ornamentation of gold, the Waltham Mfg. Co. tells the story of *Orients* for 1901. The catalog itself comprises but twelve pages, which tell the tale briefly, concisely and well. The arrangement of the pages, too, is as unique as the cover. Each page is indexed, so to speak, in exaggeration of the manner in which up-to-date dictionaries are alphabetically indexed. The whole conception and arrangement of the publication are off the beaten path of catalogs, and are naturally the more striking because of it.

The Retail Record.**FIRES.**

Fayette, O.—J. M. Allion, completely destroyed; insured.

NEW STORES.

Duluth, Minn.—S. Rose.
 Lewiston, Me.—Percy Shaw.
 Milton, Vt.—Charles Depatie.
 Vancouver, B. C.—C. A. Scott.
 Delphia, N. Y.—J. R. Roberts.
 La Porte, Ind.—Jay Parkinson.
 Wyoming, Ill.—W. H. Bartram.
 Brockton, Mass.—Pickard Bros.
 Spirit Lake, Ia.—Henry Yeager.
 Southampton, N. Y.—J. S. Allen.
 Adams, Minn.—Knutson & King.
 Traverse City, Mich.—F. E. Lang.
 North Conway, N. H.—A. E. Nash.
 Manchester, Conn.—Fred Saddler.
 Vancouver, B. C.—J. W. Thornton.
 St. Albans, Vt.—Mayhew & Wild Co.
 Essex, Mass.—J. L. Taylor, repair shop.
 Whittenton, Mass.—Copeland & Dregghorn.
 Manchester, N. H.—J. F. Paquette, repair shop.

Marysville, O.—Frank L. Denman, repair shop.

Woodhull, N. Y.—Lynn Park, West Main street.

Rockland, Mass.—J. B. Crowell, Hartsuff street.

Ottawa, Ont.—Smith & Barnes, Bank street.

South Manchester, Conn.—Maurice Madden, repair shop.

Lee, Mass.—Harvey W. Fenn, corner Main and Franklin streets.

Wakefield, Mass.—Morrison Merrill, repair shop at 92 Albion street.

Cambridge, Mass.—Teddy Duncan, 284 Webster avenue, repairing.

Superior, Wis.—Hunter & Marticot, 294 West Fifth street, repairing.

Barberton, O.—Lynn W. St. John and Joseph Koonce, Second street.

Vineland, N. J.—Joseph Comins, Seventh and Peach streets, repairing.

Owensboro, Ky.—John Wilhoite and Robert Carpenter, repair shop at 1,102 East Fourth street.

CHANGES.

Ardoch, N. D.—George Hill succeeds Fox & Hill.

Kimballton, Ia.—M. N. Esbeck & Co. succeed Esbeck Bros.

Lake City, Ia.—Mrs. F. A. Hain succeeds W. A. Folkerts.

Glenville, Neb.—W. B. Shively succeeds J. H. Walburn.

Ord, Neb.—Russell & Sorenson succeed Ord Hardware Co.

Scottsdale, Pa.—Eicher & Graft succeed Bryan Bros.

Garden City, Mo.—Wilhite Bros. succeed A. W. Wilhite.

Panora, Ia.—H. C. Ballard succeeds Zager & Denton.

Goldfield, Ia.—A. MacEachran succeeds Henry Gilbert & Co.

Hartley, Ia.—B. R. Farragher succeeds Dorr Miller.

Bucklin, Mo.—T. A. Hausmann succeeds Story & Hansmann.

Marlow, Ind. Terr.—Gilkey Bros. & Jarbow succeed Gilkey Bros.

Hartford, Conn.—Olmstead & Zeigle succeed George N. Olmstead.

Muncie, Ind.—C. F. Hamlin, sold out to C. J. Platt.

Lemoore, Cal.—Clark Henry, sold out to George Ritchie, proprietor of the California Cyclery, at Hanford, who has placed Albert Uitterback in charge.

Lancaster, O.—George Lutz has sold his repair shop on South Broad street to George Brooks.

Canandaigua, N. Y.—J. K. Rush has moved to a new store on Main street.

Jersey City, N. J.—Crescent Cycle and Automobile Co. succeed Frank Eveland Cycle Co.

Canastota, N. Y.—J. C. Foord has bought the Canastota Novelty Works, and will add a repair shop.

Montpelier, Vt.—Holmes & Ordway, dissolved; Ordway will continue.

Relics of the Past.

Down at Jamaica, Long Island, a dealer has a little display of which he may or may not be proud. Very possibly his feeling is one of indifference, brought about by long familiarity with the articles under notice.

Nevertheless, the old timer cannot pass the store without having memories of his happy youth crowd upon him thick and fast. For the display consists of a couple of "ordinaries," or high wheels, and they seem to bring into view the storied past, with all its wealth of experiences. Rather disconsolate they look, time having dealt hardly with them and left plain signs of its ravages all over them. Rusty and altogether neglected they are, and nothing intervenes between them and the scrap heap save a more or less enduring sentiment, or perhaps just an ordinary desire to make use of them as an advertisement.

A roadster and a light roadster, they bear marks of their lineage as distinctly as if the name plates were still attached to their backbones—which they are not. Direct spokes mark the one, as the hybrid "resultants" tell the model of the other. Sans tires, sans saddles, sans pedals, they are but the skeletons of their former selves, and meaningless to the vast majority of the spectators. There are but few of them left now, stowed away in odd nooks and corners. Some day they will have disappeared entirely, and then, perhaps, there will creep in a feeling of regret at their ruthless destruction.

Connecticut Protects Chickens.

Under a law passed by one house of the present Connecticut Legislature, chicken stealing becomes a crime of greater magnitude than the theft of a bicycle. A penalty of \$100 and imprisonment for two years is imposed for the raiding of henneries, depredations having grown so much during the last few years that such a law was deemed almost a necessity.

It's English, you Know.

Summarizing the situation as developed by the Easter holidays, an English journal, after commenting on the enormous number of riders seen on the roads despite the bad weather, finds three tendencies in evidence, viz.:

(1) That the number of lady riders promises to be greater than ever; (2) that the free wheel is finding fresh believers, and (3) that the popularity of the separate brake is increasing rapidly.

Not the least curious of these tendencies is the ever widening line between English and American practice in the matter of coaster brakes.

Here the two are inseparably linked. The brake is the necessary complement of the coaster, and the two, in combination, are a most emphatic success. No rider would think of dispensing with either half.

On the other side, however, a diametrically different policy prevails. The tendency to separate the coaster from the brake becomes more pronounced as the months go by.

The coaster brake is almost without a friend among English makers of coaster or "free wheel" devices. The brake must be separate is the general cry, and any number of reasons are assigned for this pronouncement.

Were it not for the fact that American coaster brakes—and good ones, too—are in use on the other side, one would be tempted to say that their manufacture was a lost art there; that all such devices were bad.

This being impossible, the only thing left is to regard it as characteristically English—and to let it go at that.

The Home Made Motorcycle.

The "beauties" of homemade motor bicycles were demonstrated in Hartford, Conn., one day last week. Irving S. Kent had built his own bicycle, and while trying it on the road it collapsed, throwing its rider on his head. He was unconscious for hours, but finally recovered.

What is Left Unsaid.

What a "boost" some makes of bicycles get when they are about to pronounce their own valedictory! The left-overs are rounded up, their equipment completed in some fashion, and they are sold for spot cash to some enterprising merchant at astonishingly low figures. Then they are heralded as the "best ever," and the fact that the price has never, never been cut is dwelt upon preparatory to making known the fact that a horizontal reduction has been made at last. But not a word is said about their manufacture having been discontinued. That is for the purchaser to find out at a later period.

The Newport News Cycle and Hardware Co., of Newport News, Va., is putting in machinery to be used in the manufacture of bicycles. The leader will be called the Newport News.

ENGLAND'S EASTER

Unlike Ours. it Brought out Great Crowds, Motocycles Cutting a Figure.

London, April 10.—Easter has come and gone, and during the four days' holiday the roads have been more crowded with cyclists than has ever been the case before. Among the number there was a goodly percentage of motocyclists, tricycles predominating and the quads coming in a good second in public favor.

Of motor bicycles I only saw about half a dozen, and it seems that, at present at any rate, this class of machine is not regarded with much favor here. I saw three or four of the Singer motor bicycles and a couple of Werners, but these were all. On the other hand, motor tricycles were very numerous, and at nearly all the well-known cycling resorts two or three of these machines were to be seen. This, I think, clearly shows the hold which motocycling is obtaining, more particularly upon the cyclists of what we call the "old brigade," who still adhere to their old haunts, and, when they find that their once-boasted speed powers are failing them, turn with gladness to the motor. For instance, the brothers Chase do not now appear to do much active cycling, although they are often to be seen on motor tricycles and quads. Robert Todd is now seldom or never seen on a pedal-propelled cycle, but is often met on a quad, upon which he takes long journeys.

All this speaks well for the future of the cycle trade, and also for cyclists themselves, because those who do not care for the motor now, either because they prefer to take physical exercise on the cycles or because they do not care to expend the cash necessary to purchase a good motor, can look forward to the time when nature shall have in the course of events curtailed their power of getting about, and can then take to a motorcycle and continue to travel to their old favorite spots. These are the men who will encourage the spread of motorcycles, and who are encouraging it now, for every day sees fresh converts to the motor ranks.

The other day I had an experience of the trouble which arises when the water-cooled high-power motors fitted to some of the tricycles fail to get a proper circulation. A friend was riding one of these machines, and I was on an air-cooled motor which was of less power. At first my friend had to continually wait for me, but later on in the day his machine took a bad turn, and I had matters much my own way. Toward the end of the run we found that the water in his motor was not circulating at all, and as a result the motor ran hot. This caused the induction valve stem to burn and finally crack through, and in order to get home I had to return to a town some ten miles away to find

a repairer who had a spare inlet valve. This I was fortunate enough to obtain, and with it returned to my friend. Finally we reached home about 2 a. m. I must say that at present I am not particularly sweet on any of the very high powered motor tricycles.

Easter tourists on motors have found out that, as a rule, the game is rendered more expensive than it should be by reason of the landlords of the various inns persisting in charging more for the accommodation of motocyclists than they do for other people. Just why this should be it is hard to say, but there were several such instances, and some high words in consequence. It is all very well for the innkeeper to say that the extra charge is for the care of the motor, but as a rule the machine is left in the yard and to the tender mercies of the villagers, so that very often the riders object to paying about 50 cents more for a meal than the usual tariff of the house.

I do not know what the charge would be for reboring a cylinder if the work were performed by any of the motor companies, but recently I heard of a motor tricyclist who had bought a second-hand machine which had had a great deal of wear. The cylinder had worn oval—the motor is of the horizontal type—and the compression had nearly all gone. He took the engine to pieces and sent the cylinder to an engineering firm to rebore. The charge was only \$2.50. Now that motor is as good as ever, the only additional cost incurred being a new set of piston rings, which are not expensive.

The races promoted at the Crystal Palace track by the English Motor Car Club on Easter Monday attracted a fair amount of attention, but not quite so much as might have been expected. C. Jarrott won the five-mile scratch race for tricycles and the two-mile race for voiturettes. The time for the tricycle event was 7m. 31.2-5s., and when Jarrott made an attempt on his own record for a mile, namely, 1m. 22.4-5s., he only did 1m. 30.1-5s., owing to the heavy wind blowing at the time. But this performance was wonderful, even when compared with the speed of the motor over the five miles. The voiturette time was the most astonishing, and was given as 2m. 16.3-5s., which, if correct, would give about 1m. 8s. per mile. I must say that I can scarcely credit this speed, although the figures have been published by several of the high-class daily papers, which should not have been misinformed.

Once again I venture to doubt if the publication of these fast times is at all in the best interests of motoring, having regard to the prejudice which now exists against motor cars and cycles all over the country. Few people will believe that such feats are only possible on a track, and indeed I am rather of opinion that the racing tricycles, if let out on a good mile of straight road, would beat the track time.

VEEDER'S RIGHTS

The Attack on Them in English Courts Redounds to the Cyclometer's Credit.

It now appears that the claim made by A. W. Gamage, Ltd., of a partial victory in the English courts over the Veeder Mfg. Co., as noted in last week's *Bicycling World*, is not borne out by the facts in the case.

The action was one brought by Gamage against the licensee of the Veeder Co. in London, and sought to bring about a revocation of the Veeder patents. It is true that one of the five claims in these patent specifications was set aside by the courts; also that the costs were placed on the defendant. But the latter was done in obedience to precedents and not as a matter of justice. Leave to amend the rejected specification was given, and the other four, which are the important ones, were allowed and thus given the approval of an English court.

These facts were brought out in a letter from Secretary D. J. Post, of the Veeder Co. He quotes from a copy of Justice Joyce's decision, as follows:

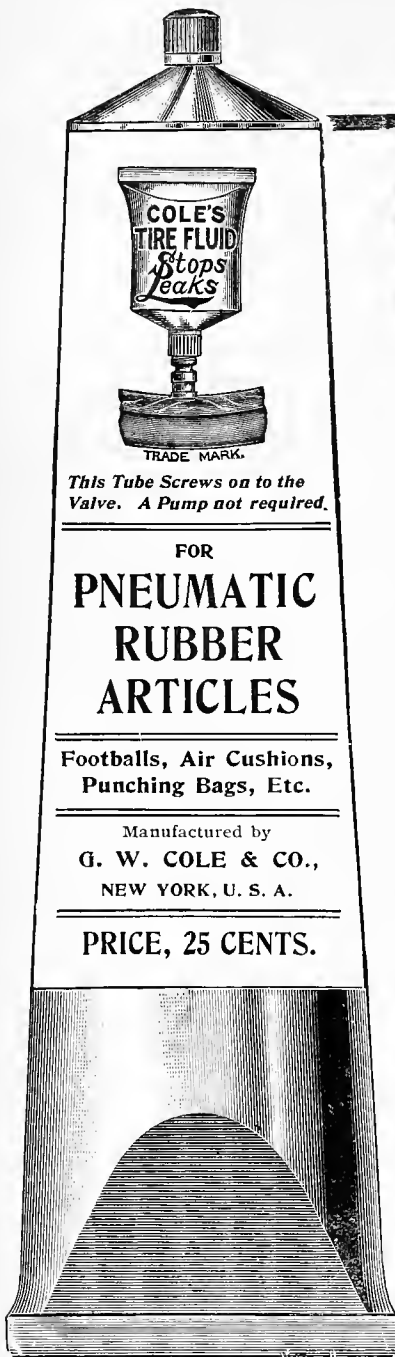
"The uncontradicted evidence adduced on behalf of the respondent shows, and I am convinced, that the instrument I have attempted to describe does in a neat and ingenious manner accomplish that which is stated in the passage which I first read from the specification to be the main object of the invention.

"It very completely fulfills the requirements and objects of a cyclometer. In my opinion it did require the exercise of ingenuity to invent it. There is no question as to its utility. I consider it to be superior to any other cyclometer previously in the market, but its novelty is impugned and it is alleged not to be proper subject matter of a patent.

"The combination of which the cyclometer in question is the result appears to me to be new, whatever may be the case as to any one or more of its component parts taken separately. But is it good subject matter for a patent? Is the amount of invention, if any, that was required sufficient to support the grant of a patent?

"I do not find in the authorities any definite rule which I can apply to determine what my answer ought to be to this question; but after much consideration, and subject to what I may have to say concerning one of the claims with which the specification concludes, the question I have just stated ought, in my judgment, to be answered in the affirmative, or in other words, rightly or wrongly, I hold that subject as above mentioned, the invention is good subject matter for a patent and that the several claims with which the specification concludes are good and valid, except the first."

Secretary Post also stated that under their new method of making cyclometers the first claim of the patent, which has been revoked, was of little value to them and that the decision was entirely satisfactory to his company.



COLE'S STOP LEAK FLUID

is the only perfect fluid for positively healing leaks and ordinary punctures in tires. Tube is screwed to the valve and the fluid forced into the tire.

It is a purely vegetable compound soluble in water and its use will not prevent patching and vulcanizing. Each tube contains sufficient for one application.

**\$1.30 Per Dozen,
Express Prepaid.**

We will send COLE'S STOP LEAK FLUID packed one dozen tubes in a box any place in the United States, express prepaid on receipt of \$1.30. (P. O. money order, draft or check.)

RETAILERS—You can buy at this price from your nearest jobber. If he should be unable to fill your order at once, remit to us and we will ship goods by express prepaid, immediately.

This is the genuine tire fluid. All other preparations put up in tubes to screw to valve are imitations.

**G. W. COLE CO.,
141 BROADWAY, NEW YORK.**

Makers of the
Famous

3 in One

Here's a Popular-priced Automobile.

Cycle dealers interested in or prospecting for automobiles will seek in vain for a better proposition than that offered by the Olds Motor Works, 54 Concord street, Detroit, Mich.

The Oldsmobile, as they term their runabout, is a handsome vehicle, and the list price, \$600, is nearer what may be termed a "popular price" than any other available quotation. The runabout is of the gasoline type, one gallon of that fluid being claimed to be sufficient for forty miles; and the fact that the Olds people have been designing and manufacturing gasoline motors since 1885 gives them advantages that are not to be denied. The runabout, too, is so made that a delivery box or parcel carrier may be put on and taken off at will, thus making it serve for both business and pleasure purposes.

The Olds catalog is as interesting as the vehicle itself. It includes nearly forty illustrations showing the runabout doing all sorts of things on good roads and bad, up hill and down, and on the level.

Ways of the Australians.

While accustomed to victory on the track, particularly since his sojourn in Australia, "Plugger Bill" Martin, the well-known American racing man, has found litigation not so easy. Recently he brought suit against a Melbourne manufacturer, trading under the name of the Martin Cycle Works, for the recovery of £97 15s. 3d., being commission on his wins while riding a machine bearing the defendant's nameplate. Strong counsel was retained on both sides. Martin claimed that he entered into an agreement with the defendant to ride a cycle styled the Martin up to May 31, in consideration of which he was to receive 32½ per cent on all first prizes won by him. Up to date Martin (plaintiff) had won £448, the commission on which amounted to £145 15s. 3d. Of this amount £48 had been paid on account, leaving the balance sued for. The action was dismissed on the grounds of no jurisdiction, owing to the majority of the races having been won in Sydney.

The Factory and the Trade Journal.

The average factory or firm thinks it has done its duty if it takes a single copy of its trade journal for the attention—or inattention, as the case may be—of the officials or the office force. Those in humbler positions rarely get a sight of the periodical. The case is different in Germany, where the staff, down to the foremen, read the trade journal with regularity and interest, generally at the cost of the firm. The foremen are thus kept intelligently posted, and absorb many ideas that return to the profit of the firm or factory.

A shortage of certain sundries is reported in Minneapolis.



GRIEF OVER GUARANTEES

Some of the Things the Dealer has to Put up with, as Told by Himself.

No matter how hard he may try, the dealer frequently finds it difficult to satisfy his customers. The very thing that one complains of most bitterly is regarded by another as being a good thing. The first bewails his ill fortune and imagines that he would be perfectly happy if he were as fortunately situated as the second one.

In a talk with a veteran dealer the other day the *Bicycling World* representative had this impressed on him in a forcible manner. The dealer had just finished a seance with a customer, and while he had not come out second best, neither had he come off with flying colors. Consequently he was a little provoked, and inclined to declaim against the unreasonableness of the average rider.

"Would you believe it," he exclaimed, "that man thinks he has a claim against me for a mishap to his bicycle, although it is two years old. Says we ought to fix it, and threatens to do all sorts of things if we won't do it. He did not get much satisfaction out of me, I can tell you.

"It was this way. The man has an 1899 machine of the very first grade, and for two years he has used it constantly without any trouble whatever. Even he has to admit that it could not have been improved on.

"Well, the other day he was riding along, and in turning a corner he struck a slippery place and came a cropper. He bent one crank and pedal, and knocked the frame pretty badly. It is out of line, one of the tubes has a kink in it, and the rear wheel is slightly buckled. Altogether about a couple of dollars worth of damage was done. That amount would put the machine in as good shape as it was before the fall, with the exception of the kink in the tube; and even that is not of a character to affect the stability of the frame.

"Now, how he can figure out that the machine was to blame, or that we ought to repair it gratis, is more than I can understand. But he does, and he is just the man to stand out for what he thinks he ought to have. He will make a lot of trouble for us, and it would really pay us to fix his machine up and make no charge. Perhaps if he had come at me in the right way I might have done this. But he riled me, and I flatly refused. So, I suppose there is trouble ahead.

"He reminds me of an aggravating time I had two or three years ago," continued the dealer, who was in a talkative mood. "I was put to a great deal of trouble in that case, but, as in this one, it was hard to see any way out of it.

"At that time we were selling two of the most prominent makes of machines on the market, and doing well with them. There were two of our customers who were great friends, and rode a great deal together. They

made a little trip one summer evening, and coming home—it was pretty late and very dark—they struck a hole in the road and came to grief.

"The first man went headlong, and being unable to give his companion warning, the latter came right on top of him. When they scrambled to their feet and came to take account of stock, they found that no very serious damage had been done. There were some bruises and missing scraps of cuticle to be lamented by the riders. But the machines did not appear to be materially the worse for the mishap. Certainly they were rideable, and the men continued on their way.

"In the morning, however, things looked a little different with the first rider. The shock had jammed his frame, the top and bottom tubes near to the head being both bent downward and backward. There was no fracture, not even a kink in either of the tubes. But the bends were very evident, and

conceal the fact. He even went so far as to say that he did not know whether he could ever have complete confidence in the machine again. There was So and So's wheel. It had gone through exactly the same experience, and it had not doubled up. That being so it must be better than his machine. Come to think of it, he was not sure he had not made a mistake in selecting his own machine.

"Now, what made this talk harder to bear was the fact, already known to me, that his friend's machine had come out of the encounter in even worse shape than his own. It contained tubing having a very large amount of carbon in it; consequently, it was hard and very brittle, and it had just been brought to me with a cracked top tube. How it had ever been ridden after the fall was a mystery; but there was the frame almost in half, and being crated for return to the factory.

"For a moment I was tempted to tell the foolish rider the truth. But there was a great rivalry between the two makes, and it was a point of honor with us to maintain secrecy about such things. Besides, if I told my customer the truth he might come to the conclusion that neither make was any good; he was just pig-headed enough for that.

"So I did the only thing that was left, viz., argued with him until I got him in a little better humor. To do even this, however, I had to agree to repair the machine free; and I was not at all sure that this would keep the rider pacified for any length of time.

"To complete the matter, I had to loan the second rider another machine while his frame was away. He was bound to secrecy in the matter, and his mishap never got out at all. But the other man we never could satisfy; and we finally lost him altogether. It was rather a relief, however."

Changes Here, too.

Even that most immovable of men, the carriage blacksmith, is compelled to acknowledge that the "world do move." "The arrival of the bicycle, automobile, the pneumatic tires and wire spokes has greatly revolutionized the carriage repair business," a retired carriage smith is quoted as saying.

"When I first engaged in the carriage business, if a man wished for a new whiffletree it had to be sawed out and worked by hand, while now they come already fitted with the necessary irons, and it is astonishing how quickly one can be fitted."

Bown Will Manufacture Motors.

Clifford E. Bown, a Youngstown (Ohio) dealer, has completed a motor bicycle, which was built in his own shop. So successful has it proved that he has decided to embark in the manufacture of similar machines. The motor is of the usual gasoline type.

George Boswell, of Danielson, Conn., is engaged in "perfecting a motor attachment to a bicycle," to cost \$100. The motor is one horsepower.



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

while it was possible to straighten them, the job would be a very ticklish one. The frame might never be as strong as it was originally.

"The rider brought the machine in to me, and I gave him my opinion, which was that a couple of new tubes should be put in, so as to be on the safe side. He did not receive my intimation kindly, and it did not take me long to see that there was something wrong with him. He seemed to be very much disgruntled. A few shrewd questions laid bare the cause.

"He was not satisfied with the way the wheel stood up, or failed to stand up, under the shock. It was a nasty fall, to be sure, and he would not have thought so much of it if the frame had broken. But that it should bend in that fashion was quite another matter. The tubing must have been soft, or it would have resisted the shock better. Consequently, he thought it should have been repaired under the guarantee.

"Argument was tried, but it had no effect. He was dissatisfied, and made no attempt to

COMFORT

with

SPEED

is the

CUSHION FRAME

Motto.

The **CUSHION FRAME** is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold **WITHOUT IN THE LEAST DETRACTING** from the **SPEED** or **POWER** of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy, "get there" riders who at first "scoffed" the idea of **COMFORT** being combined with "speed and power" in a bicycle.

HYGIENIC WHEEL CO.,

220 Broadway, New York.

Owners of the Cushion Frame Patents.

OUR
CRANK
HANGER
DOES
IT.The
RacycleDOES
WHAT ?
MAKES
IT RUN
EASY.**ECLIPSE BICYCLES**

Better than ever.
Good Agents Always Wanted.

SEYMOUR MFG. CO.

99 CHAMBERS ST., NEW YORK.

Do Your own Nickel Plating.

It is, unfortunately, generally the case that in the cycle dealer's busy season the nickel plating establishments are overstocked with work, and he has to wait considerable lengths of time to get back parts sent to him and wanted for purposes of assembling, says a well informed writer.

These delays are part of the worries and anxieties of the life of the cycle maker. Without disparaging the work of the electroplating firms, we must admit that at times and under certain circumstances it is a profitable part of a cycle maker's business to undertake the plating and enamelling work himself. Especially is this so when a cycle maker has his business established in some country town far away from any firm of platers. It often happens then that he can turn his plating and enamelling plant, humble, perhaps, though it may be, to profitable account in undertaking plating work outside the scope of the cycle trade, doing jobs for the local ironmonger or saddler, besides the custom which he might get from the well-to-do residents of the country side.

It may be thought by many who have not given the question any amount of consideration that the art or trade of electroplating is one which requires a great deal of study or apprenticeship. This is so to a great extent, especially if the intending student wishes to study fully the chemistry and electricity of the subject as it affects the electro deposition of a variety of metals.

On the other hand, to gain a mastery over the technical details of nickel plating cycle parts needs no chemical training. The trade has been brought right away from the experimental and theoretical stages, and is now a practical operation governed by well understood rules, capable of being followed out successfully by any workman endowed with a reasonable amount of brains, intelligence and common sense. It needs no elaborate chemical learning or mathematical training to enable a cycle maker to successfully undertake the plating and polishing of his own work.

YOU'RE IT !!!

WITH A NEW DEPARTURE COASTER ON A WHEEL LIKE MERCURY WITH HIS WING UPON HIS HEEL YOU CAN COAST A MILE A MINUTE. THE AUTOMOBILE ISN'T IN IT. YOU FAIRLY YELL FOR JOY SO GOOD YOU FEEL.

MFRD. BY THE NEW DEPARTURE BELL CO. Bristol, Conn. U.S.A. MAKERS.

Selling Agents John H. Graham & Co. 113 Chambers St., New York City.

**Why Buy
New Jersey Mud**

mixed with Sulphur and baked on to Fabric, when for about the same price you can buy really High Grade Tires?

No. 66 Fisk just one-half factory price, and Kangaroo one-half price.

Write for prices before they are closed out.

BOSTON CYCLE AND SUNDRY CO.,

J. M. Linscott, Manager,

7 HANOVER ST.,

BOSTON, MASS.



NEWARK (N. J.) CYCLE SPECIALTY CO., MAKERS.

INDIANA CHAIN.EASIEST RUNNING.
CONSEQUENTLY BEST

Send 26 cents for Fob. \$1.80 per dozen, on card.

INDIANA CHAIN CO.,

INDIANAPOLIS, IND.

ENAMELING AT HOME

Recurrence of the Expensive Advice That Once Pervaded the Cycling World.

In much the same manner that the sensational dailies a few years ago told a credulous public how to build a bicycle for \$19.99—by purchasing the parts and putting them together—an English cycling paper tells its readers how to “enamel the old machine for a shilling.”

At first sight this looks like a singularly aggravated and unwarranted attempt to “do” the repairman out of a more or less lucrative job which rightfully belongs to him. But reflection will convince any one who has seen a frame enamelled—especially by the brush process—that the object is an entirely different one.

The unlucky wight who attempts to save ten shillings or so by the expenditure of one and a little valueless time is certain to find sooner or later that he has only his labor for his pains. The longer he works the more hopeless he will find his self-appointed task and the deeper he will get into the hole.

The inevitable result will be a belated visit to the nearest repairman, with whom a bargain will be made to undo the amateurish work at a 50 per cent or so advance over the regular price. In this way the repairer will come into his own, plus a few extras, and the rider will realize how ill fitted he is to cope with such jobs. Incidentally, his opinion of the repairers' ability will undergo a considerable change.

According to the journal referred to, the following is the way to re-enamel the old machine for a shilling:

“Procure an old mustard or condensed milk can—if the latter see that it is perfectly clean—and three bottles, and wend your way to the nearest oil shop. Ask for the following: 2d. worth drop black in turps (have this put in the tin); 2d. copal oak, or good hard drying oak varnish; 1d. gold size; 1d. turps; sheet of O emery cloth; 1d. potash and a flat hog hair brush, the price of which will be either 3d. or 4d.

“Remove the chain, after which go carefully over the enamel with a weak solution of potash water. This is prepared by allowing the potash to dissolve in $\frac{1}{4}$ pint of warm water. Use an old piece of rag, taking care that you do not splash your clothes with the liquid. Repeat the washing, after which the removal of the old enamel can be easily accomplished with the aid of an old knife. When the old enamel is completely removed, go over the tubes with the emery cloth. By this means the surface will be clean and all rough places eliminated. Should dents be discernible, they can be filled up with a small portion of plaster of Paris.

“When the machine is thoroughly dry and clean, pour the gold size into the drop black, thinning it out by adding a small portion of

turps. Dip your brush so that the hairs are thoroughly submerged, and see that no loose hairs work out on your work; break in the brush by rubbing it up and down any old piece of wood or wall first.

“Now take the smallest amount of color on the brush and paint away. Remember the less quantity of color you use, the better the result. You will find that this preparation dries ‘flat,’ i. e., with no gloss whatever, and should be applied thinly, evenly and quickly. In the varnishing the brush should be carried up and down from lug to lug, and but the smallest possible portion of varnish should be used. If the weather be damp when the work is in progress, it is advisable to add a little turps to the varnish to enable it to dry more quickly.”

Repair Bands Reach England.

What is described as a “very good thing” has been put out by an English firm. It is a tire repair band, something similar to the M. & W. band in use here for several years. It is intended for use when a rider has had the misfortune to run over a bottle, or when some old gash in the cover suddenly gives way and causes a really serious rent in the tube.

The repair band consists of a small oblong sheet $4\frac{1}{2}$ in. long by $2\frac{1}{4}$ in. wide. It is made of very thin strong fabric, with a fine rubber film on one side. All that is necessary when it is required to support the cover is to partly deflate the tire, and insert one end of the band between the tire and rim. The band is then stretched tightly across the tire, and the other end tucked in on the other side. When both ends are well below the bead of the rim, and the band has been got smooth and in close contact with the cover, inflation may be proceeded with.

Will Make no Charge.

Despite the action of some Southern railroads in deciding to make a charge, both the Pennsylvania and the Philadelphia and Reading will continue to carry bicycles free this year.

General Baggage Agent McWade, of the Pennsylvania company, is quoted as saying that the charge for carrying bicycles was confined to Southern lines, which rate them as excess baggage. But the Northern roads would not make any charges. The number of wheels carried by the companies last year, compared with the time when the bicycle craze was at its height, was 100,000 less.

General Passenger Agent Edson J. Weeks, of the Reading Railway, said that his company would carry wheels, as before, free of charge, and that the matter had not been considered by the General Passenger Agents' Association.

Three Firsts for the Planet.

Rather large claims are those made for the Planet Cycle Mfg. Co. of Toronto, Canada, viz.: That it is the pioneer of the cycle industry in Canada, the first concern to use the wood rim, and the first to manufacture a motor bicycle.

The Persons



For Persons

who seek

the best

in saddles

and are

satisfied

to ride

(or sell)

no other.

Are
you
one
of them?

Persons Mfg. Co.,
Worcester, Mass.

The Week's Patents.

672,670. Bicycle Holder. Russell G. Smith, Buffalo, N. Y., assignor to George B. Jobonot, same place. Filed May 25, 1900. Serial No. 17,923. (No model.)

Claim.—1. A bicycle holder for holding a bicycle in an upturned position with the front wheel above the rear wheel, said holder comprising an upright support and a base support for supporting the rear wheel and the frame in a vertical position, in a plane at right angles to said upright and base supports, and a hook adapted to receive the front wheel and to engage the inner side of the rim thereof between adjacent spokes, said hook opening rearwardly, toward said upright support, and upwardly at an oblique angle.

672,073. Pneumatic Tire for Vehicles. Hugh L. Warner, Dayton, Ohio, assignor to Alden D. Clark, same place. Filed Sept. 27, 1900. Serial No. 31,237. (No model.)

Claim.—1. A detachable tire for vehicle wheels comprising a flexible strip provided on one side with studs and adapted to be secured circumferentially on the wheel, an inner tube and an outer casing inclosing said inner tube and provided at its edges with eyelets adapted to engage said studs.

672,124. Micrometer Attachment. Justin Hamilton, Auburn, N. Y. Filed Aug. 22, 1900. Serial No. 27,700. (No model.)

Claim.—In a micrometer, the combination with an internally threaded sleeve; of a screw therein, a cap engaging one end of the screw and extending over a portion of the sleeve, ears to the sleeve, a block, a concave face to the block V-shaped in cross section, an ear extending from the block and between the ears of the sleeve, means for binding said ears together, a yoke adapted to receive the block, and a set screw within the yoke and normally contacting with but independent of said block.

672,135. Bicycle. Francis H. Richards, Hartford, Conn. Filed Aug. 13, 1897. Serial No. 647,148. (No model.)

Claim.—1. In a bicycle framing, the combination of a crank hanger comprising a band; a pair of axially bored plates having peripheral flanges for engaging said band; a pedal-shaft carrier having means of securing said band and plates together, and said plates to said carrier, said band being of a

width relatively much less than the distance between said plates where they engage the carrier.

672,172. Bicycle of Vehicle Spring Bearing. Fred L. Koehler, Chicago, Ill., assignor of one-third to Thomas J. Dunne, Dubuque, Iowa. Filed June 26, 1899. (No model.)

Claim.—1. In a spring bearing for bicycles and other vehicles, in combination, a tubular axle; end caps therefor; a bracket secured to each of said end caps outside of said tubular axle, which brackets each have a guideway therein; a spring on each of said brackets; bearing blocks for said springs, adapted to lie in the guideways of said brackets; and means for rigidly connecting the bearing block with the supports for the vehicle body.

672,271. Valve for Inflation. Roland C. Hilton, New Bedford, Mass., assignor of one-fourth to James M. Willis, jr., same place. Filed Aug. 28, 1900. (No model.)

Claim.—1. In a valve for inflation the combination of a chambered body carrying a valve seat and having a laterally projecting head, a screw-threaded plug partly within the chamber of said body, a valve adapted to bear on the valve seat and having its stem passing loosely through the plug, and a cap internally screw tapped to engage the plug and having its lower end embracing the head of the chambered body and permanently secured thereto substantially as described.

672,313. Caliper-Adjusting Attachment. Edward H. Coombs and Fred W. Lieben, Cleveland, Ohio. Filed Oct. 15, 1900. Serial No. 33,061. (No model.)

Claim.—1. In an attachment for a pair of calipers the combination with the pivoted arms, of a link connecting them, the said link being provided with a long slot at one extremity and a short slot at the other extremity, a threaded pin passing through said long slot and an adjacent arm and a nut therefor, a sliding head provided with a threaded pin, passing through the said short slot in the link and the other arm, a lock nut and washer for said pin and a cap nut over said lock nut, an upturned extremity of the link and a screw passing through said sliding head and the said upturned portion of the link and provided with a head on one side of said upturned portion and a nut on the other, substantially as described.

672,332. Sparking Igniter for Explosive Engines. William Roche, Jersey City, N. J. Filed Nov. 20, 1900. Serial No. 37,106. (No model.)

Claim.—1. An electric igniter, comprising an insulating body, conductors extending longitudinally therethrough, and conducting caps provided with spark points and with apertures tapering toward the conductors, the inwardly widened inner ends of the conductors fitting into said apertures.

672,401. Bicycle Support. Rudolph Axel, San Francisco, Cal. Filed June 6, 1900. Serial No. 19,325. (No model.)

Claim.—1. The combination with a tube of a bicycle frame, having a pin extending therefrom, of a collar fitting upon said tube and having a slot through which the said pin projects, and a supporting leg upon said collar, the end walls of said slot forming abutments against which said pin bears to limit the movement of said collar to hold said leg in supporting position, substantially as described.

672,424. Calipers and Dividers. Laroy S. Starrett Company, Athol, Mass., assignor to the L. S. Starrett Company, same place. Filed April 5, 1900. Serial No. 11,597. (No model.)

Claim.—In calipers and dividers, the legs adjacent to each other and united by a snitable pivot, in combination with a supplementary arm mounted external to said legs, offset at its free end and carrying a swivelled nut, a transverse bracket mounted on one of the legs adjacent to said nut, and an adjusting screw journaled in the upward end of said bracket and engaging the thread of said nut, substantially as set forth.

DESIGNS.

34,381. Bicycle Frame. George W. Manson, New York, N. Y. Filed March 19, 1901. Serial No. 51,939. Term of patent, 14 years.

Claim.—The design for a bicycle frame as herein shown and described.

TRADEMARKS.

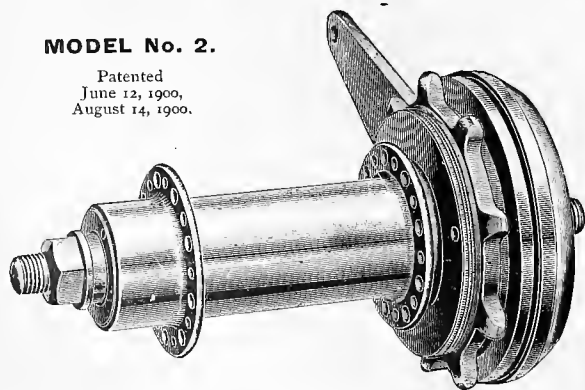
36,280. Carburetter for Petroleum Motors. Louis Lemiere, Lyon-Monplaisir, France. Filed March 20, 1901.

Essential feature.—The word "Sthenos." Used since Jan. 26, 1900.

"E Z" COASTER BRAKE.

MODEL No. 2.

Patented
June 12, 1900,
August 14, 1900.



SIMPLICITY

LESS PARTS THAN ANY OTHER COASTER MADE.

With the "E Z" COASTER BRAKE fitted to your wheel all fear at once leaves the most nervous person, for you are in position to stop the wheel immediately—and always have it under control.

Your 1901 wheel should be fitted with the "E Z."

Any dealer can furnish it.

Send for Catalog "C."

Sole Manufacturers, REED & CURTIS MACHINE SCREW CO., Worcester, Mass.

Our nearest Distributing Agent is only a few miles from you. Send for his name.

Throughout The Wide, Wide World

—the Elfin Juvenile Bicycle goes.

Though, we could perhaps, sell more machines we could not cover wider territory.

The Elfin is the Standard Juvenile of South America as well as North America—of Australia as well as Europe, Asia and Africa.

The Elfin Juvenile is easier to sell than any other Juvenile because it contains features that no other Juvenile possesses, notably the Reversible Crank Bracket, the Easy Chain Adjustment, and the thoroughly modern equipment.

Our catalog explains all.

**Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.**

Rush of Exports Continues.

After a very mild breathing spell, the cycle export trade last week regained its activity and a little more. The manifest was the heaviest of the year. Great Britain, as usual, took the largest consignments. France, Germany and Holland also bought heavily, while the shipments to Japan and Australia made tidy parcels. The record for the week, which closed April 16, follows:

Antwerp.—12 cases bicycle material, \$400.

Amsterdam.—235 cases bicycles, \$8,139; 18 cases bicycle material, \$350.

British East Indies.—7 cases bicycle material, \$478.

British Australia.—18 cases bicycles, \$429; 60 cases bicycle parts, \$2,579.

British West Indies.—47 cases bicycles and material, \$1,247.

Cuba.—35 cases bicycle material, \$377.

China.—19 cases bicycles and material, \$731.

Copenhagen.—1 case bicycles, \$50; 10 cases bicycle material, \$394.

Dutch Guiana.—4 cases bicycle material, \$152.

Dublin.—6 cases bicycles, \$195.

Glasgow.—1 case bicycles, \$35.

Genoa.—25 cases bicycle material, \$839.

Hamburg.—227 cases bicycles, \$6,007; 25 cases bicycle material, \$1,017.

Havre.—588 cases bicycles, \$10,456; 118 cases bicycle material, \$3,109.

Japan.—142 cases bicycles and material, \$4,277.

London.—660 cases bicycles, \$7,005; 103 cases bicycle material, \$8,509.

Lausanne.—38 cases bicycles, \$1,959.

Liverpool.—25 cases bicycles, \$755; 20 cases bicycle material, \$760.

Mexico.—1 case bicycles, \$37.

Newfoundland.—3 cases bicycle material, \$112.

Philippines.—44 cases bicycles and material, \$1,461.

Port Said.—1 case bicycles, \$65.

Rotterdam.—99 cases bicycles and parts, \$3,856.

Siam.—1 case bicycles, \$85.

Southampton.—1 case bicycles, \$590; 59 cases bicycle material, \$2,083.

Smyrna.—2 cases bicycles and material, \$231.

Uruguay.—8 cases bicycles, \$191.

Vienna.—1 case bicycle material, \$75.

What Good Rubber Will do.

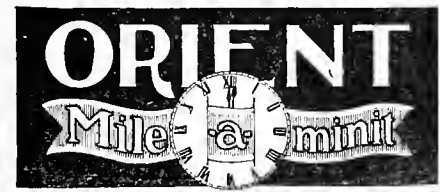
It is said that good rubber can be bent at an angle of 180 degrees and placed for five hours in a closed air chamber, at a temperature of 257 degrees Fahrenheit, without showing surface cracks. Pure rubber, containing just enough sulphur to vulcanize it, should stretch sometimes its length before breaking.

Fluch for Little.

One Central New York State dealer, who evidently needs work, advertises that he will "clean your bicycle, pack it, re-enamel, re-nickel, respoke, put on new grips and remove all dents for \$5. Our work is guaranteed—if not satisfactory you need not pay."

BOTH

THOROUGHBREDS



AND

STINSON

Both have beaten everything of any importance.

The flurry of followers only fades into the fog.

With the assistance of the Orient Leader and the Orient Milaminit Champion Stinson is champion in the fullest range of the word.

On an Orient Leader he scored the quickest hour record, which, though unofficial, is admitted; the one hour championship of the world; and the 1000 mile score.

What a range of riding—what a triumph of mechanism!

To cap the climax and clinch his claim to the championship title, last Saturday at Charles River Park, the Orient Milaminit, in a 25-mile motor-paced race, carried him to victory against hard fought competition and odds, at that—to wit: The two next best men and his usual hard luck. For, to be absolutely correct, to the 11-4 lap lead of one and 5 1-2 laps lead of the other should be added the three-quarters lap gained which was lost by a mishap.

Moral: Never worry about competition when you are backed by Orient mechanism.

WALTHAM MFG. CO.,

Bicycles,
Motocycles,
Automobiles.

WALTHAM,

MASS.

Phillips on Price.

Had his speech been delivered a score or two of years later, Wendell Phillips would have found in the bicycle an even more apt simile than any other at hand.

Referring to the condition of the poor, the great orator said:

"Lift the price of bread half a cent a pound in Paris, and half its citizens would be compelled to steal or starve. And whether a thing be a luxury or a necessity, the cost of it to the individual measures its usefulness to him. Bring it within his reach financially, and he buys it and uses it, and the full benefit of the invention or product becomes his.

"Let some discovery bring the cost of a

trip to Liverpool and back to \$30, and reduce the time to five days—that is, put it on the level of an economical outing—and ten millions of people would take the trip annually. In brief, it is the price of anything needed or craved by man that fixes the limits of its popularization."

To Adjust the Insurance.

In consequence of a slight fire, with the unpleasant accompaniment of a considerable amount of water, Frank I. Clark & Co., of Baltimore, Md., recently found themselves burdened with a number of slightly damaged bicycles. In order to adjust the insurance these machines were advertised and sold last week.

WANTS AND FOR SALE.

15 cents per line of seven words, cash with order.

AGENTS WANTED TO SELL OUR FULLY guaranteed L. A. W. bicycle tires. Only hustlers need answer. Agent's sample pair of tires with instructions, catalogues, etc., sent prepaid upon receipt of reference and one dollar. The Goodyear Pad & Rubber Co., 81 Chambers St., New York.

Praise was Long in Coming.

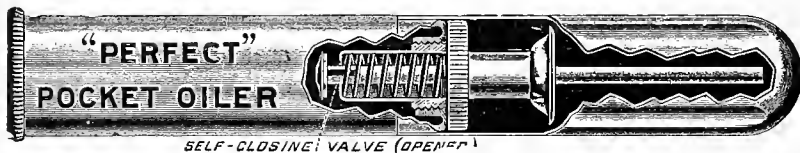
In the days of its glory, when the tide rose highest, the bicycle received more kicks than halfpence from those who had not yet come under its sway. During the last year, however, a remarkable change has been taking place. Everywhere there is a disposition to give the two-wheeled machine credit for some of the marvels it has wrought. Although considerably belated, these changed views are none the less welcome.

"If the history of the good the bicycle has done should be written in its fullest form, with all the details of each individual recited as they are in law books, it would fill more volumes than are found in a law library," says one writer.

"It has cured tens of thousands and helped hundreds of thousands of others of a variety of ailments that range over nearly the entire list known to medical practice. It has coaxed the sedentary into the open as nothing else could. It has taken the narrow minded abroad and taught them to love nature. It has been a mode of free transit from the tenements to the woodland for those who were ignorant of pastoral loveliness.

"It has educated the farmer and the statesman up to the economy of good roads and resulted in the improvement of thousands of miles of highways. It has taken our boys from the saloons and our girls from the gossip circle. It has given them joy and healthful exercise, and improved their perceptive in a way that will result in a healthier and nobler posterity."

Touching on the great popularity of the coaster-brake, a New-England traveller is quoted as saying that about two-thirds of the new machines sold were fitted with some one of the various makes.

"PERFECT" OILER.

25c.

A few of **MANY UNSOLICITED** Testimonial Letters.

"WE VOTE IT A SUCCESS."—Pope Mfg. Co., Hartford, Conn.

"I WOULD NOT BE WITHOUT IT FOR ANYTHING."—H. M. Perry, Greenville, S. C.

"THEY GAVE THE BEST SATISFACTION OF ANY OILERS WE SOLD."—Keller & Walker Moline, Ill.

"JUST THE THING I HAVE WANTED FOR YEARS."—F. E. Worth, Indianola, Iowa.

"THE ONLY OILER THAT DOES NOT LEAK."—W. D. Anderson, Dallas, Texas.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.

**STEEL BALLS**

The Best in
the World.

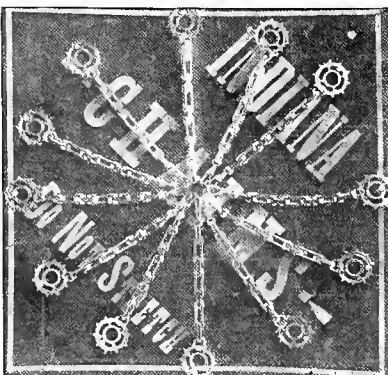
EXCELSIOR MACHINE CO., BUFFALO, N. Y.

The Central Distributing Co., Sole Selling Agts, 302 Mooney-Brisbane Bldg., Buffalo, N. Y.

INDIANA'S NEW CHAIN.

If you want the best, write us quick. Your wheel will run easier with our chain. Why? Because every link is right. After all, it is not so new. We have been making it nearly a year. Know what we are talking about and guarantee satisfaction.

EVERY LINK IS RIGHT.



Send 26 cents for Fob. \$1.80 per dozen, on card.

INDIANA CHAIN CO.,

-

Indianapolis, Ind., U. S. A.

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., May 2, 1901.

No. 5

SHAPLEIGH REORGANIZATION

Young Blood From a Rival Transforms St. Louis's Big Jobbing House.

Quite the most unexpected development that has transpired in the Western jobbing trade in some years is the practical reorganization of the A. F. Shapleigh Hardware Co., of St. Louis, which, while already arranged, does not become effective until July 1.

On that date the business will be taken over and be thereafter operated by the Norvell-Shapleigh Hardware Co., the capital of the old concern being increased from \$500,000 to \$1,000,000.

Strangely enough, the prime movers in the reorganization are heads of the Shapleigh Co.'s greatest rival, the Simmons Hardware Co. The fact has given rise to a rumor that the Simmons Co. itself was backing the Norvell-Shapleigh undertaking, but this is declared to be "without foundation."

The officers of the new company will be as follows: President, Saunders Norvell; first vice-president, Richard F. Shapleigh; second vice-president, William G. Yantis; third vice-president, Taylor D. Kelley; treasurer, Alfred F. Shapleigh; secretary, Harry B. Gordon, and assistant secretary, A. Shapleigh Boyd.

All of these officials are young men. The president, Saunders Norvell, is thirty-seven years old. He has been with the Simmons Hardware Co. twenty-one years. Four years ago he was elected third vice-president of the Simmons Hardware Co. The first vice-president, Richard F. Shapleigh, is well known from his connection with the old concern. The second vice-president, William G. Yantis, thirty-seven years of age, has been twenty years in the sporting goods and cutlery business, fifteen of which were with the Simmons Hardware Co. The third vice-president, Taylor D. Kelley, thirty-eight years old, has been fourteen years in the retail hardware business in Ohio, and for the last seven years was manager of the railway supply department of the Simmons Hardware Co. The treasurer, Alfred F. Shapleigh, has been long and prominently identified with the parent concern. Secretary Harry B. Gordon, thirty-nine years old, was

formerly in the wholesale and retail hardware business in Springfield, Mo., but has been with the Simmons Hardware Co. five years.

For many years bicycles have formed a considerable department of the Shapleigh house, and from all accounts the reorganization of its affairs will in no way diminish its interests in that regard.

Glines Cries Quits.

The Glines Liquid Rubber Co., of Providence, R. I., has discontinued the manufacture of tire fluid and retired from the business. Simultaneously, they acknowledge the validity of the Buffalo Specialty Mfg. Co.'s "Neverleak" patents, and announce their withdrawal from the association organized to fight them. The Glines people make public and detailed announcement of the fact in a circular mailed to the trade.

Sanger may Resume.

The liabilities of the Sanger Handle Bar and Plating Co., Milwaukee, Wis., which was petitioned into bankruptcy last week, are placed at \$50,000; the assets are not mentioned. Much regard is expressed for the Sanger people, and it is not unlikely that they may be able to make arrangements to continue the business.

Who Killed the Bill.

After passing the Assembly, the Doughty bill which required that all rubber-tired vehicles in New York State be provided with lamps was strangled in the Senate committee. Senators Fetter and Armstrong are said to have been mainly responsible for its death.

Creditors get ½ per Cent.

In the settling of the affairs of the old Liberty Cycle Co., Bridgeport, Conn., the trustees last week distributed a dividend of ½ per cent on the general claims; these totalled \$204,904.85; the amount distributed was \$1,024.53.

Fully three-fourths of the parts used in bicycles "assembled" in Australia—and the business is of considerable proportions—are said to be of English manufacture. Are our parts makers losing their grip out there, or why this disproportion?

COMPROMISED FOR \$4,650

A. B. C. Canadian Annex Accepts \$10,000 Less Than it Sued for.

After the case had been called for trial in Toronto last week an agreement was reached whereby the suit of the National Cycle and Automobile Co., of Toronto, vs. John Patterson, J. J. Scott and J. V. Teetzel, of Hamilton, Ont., was settled out of court. The plaintiffs sued for \$14,975 and interest, but accepted \$4,650 in full of its claim.

The suit grew out of the agreement whereby the National Co. bound itself to erect a factory in Hamilton. Under the terms of the agreement the defendants were to provide \$32,000 in instalments during the erection of the factory, the cost of the whole building not to exceed that sum. The company was to pay \$600 a year rental, with the option of purchasing the property at a fixed price. The company undertook to employ a certain number of hands, and to have the building ready within a stated time. They claimed that the defendants paid only \$17,025, leaving a balance of \$14,975.

The defendants, on the other hand, declared that the company failed to carry out the terms of their agreement, that they did not use proper diligence and due dispatch in the erection of the building. They also maintained that the building operations were abandoned for several months, and were not completed at the time of the institution of the action. Furthermore, they claimed that they were only induced to enter into the agreement by the representation that the company was a very wealthy corporation, well able to fulfil its undertakings in the agreement, and that they were deceived and misled by these representations. They had spent, they said, \$2,500 for the purchase of the land and \$17,000 on account of the cost of the building. They accordingly made a counter claim for these amounts, and asked the court to grant them a lien upon the property.

When the parties got together after the first day's hearing the compromise, as stated, was effected.

The National Co., it will be recalled, was the Canadian annex of the American Bicycle Co.

MARCH'S GOOD RECORD

The Blustery Month Gave a Good Account of Itself in Matter of Exports.

While the total export of cycles for the nine months of the governmental year ending with March was nearly \$1,000,000 less than for the corresponding period of the previous year, the total for the month itself is quite the most favorable that has been deduced for some time. It shows a loss, of course, but nothing like the heavy losses that marked the preceding months.

For this state of affairs France and the United Kingdom are mainly responsible. Both those countries made heavy purchases, their totals showing substantial increases over March of last year. The falling off in Germany and the other European countries continues, however.

The Trust having closed Canada and British North America against itself, the exports in that direction naturally continue to shrink; the wonder is that the independent manufacturers are doing so well; indeed, the item "British North America" furnishes a substantial key to the volume of business for which the independents are accounting.

Japan's purchases fell away during the month, but Australia, Africa and the Philippines placed increased orders; and with the smaller but suggestive gains in the Central American belt the month may well be reckoned a fairly satisfactory one.

The figures in detail follow:

Exported to	March		Nine months ending March—		
	1900. Values.	1901. Values.	1899. Values.	1900. Values.	1901. Values.
United Kingdom.....	\$52,761	\$87,870	\$608,337	\$294,048	\$253,514
France	25,077	40,069	320,080	180,332	96,801
Germany	52,884	28,824	792,290	322,959	113,952
Other Europe.....	97,459	61,253	1,048,336	515,134	303,578
British North America.....	75,861	57,691	338,412	205,308	173,725
Central American States and British Honduras	94	516	4,684	2,335	4,016
Mexico	764	1,415	36,016	19,208	14,569
Santo Domingo.....	21	26	226	237	337
Cuba	9,385	1,161	8,101	137,804	11,447
Porto Rico.....	173	.....	1,951	1,969	.....
Other West Indies and Bermuda.....	4,498	5,346	49,033	39,251	37,921
Argentina	6,862	78	149,731	135,940	23,341
Brazil	1,942	841	46,692	23,141	8,454
Colombia	69	79	5,719	5,950	399
Other South America.....	5,884	3,138	38,079	54,777	23,414
Chinese Empire.....	4,280	1,472	20,340	22,957	10,802
British East Indies.....	8,332	5,954	125,750	92,060	41,255
Hong-Kong	620	122	6,330	6,075	7,349
Japan	31,561	15,126	99,206	175,392	154,716
British Australasia.....	15,103	21,345	207,918	175,489	156,332
Hawaii*	11,451	.....	27,708	38,880	.....
Philippine Islands.....	2,934	5,996	430	14,773	62,175
Other Asia and Oceania.....	2,012	85	25,662	36,899	18,978
Africa	2,459	4,083	140,266	50,020	79,137
Other countries.....	.....	79	576	89	219
Totals,	\$412,486	\$342,549	\$4,101,873	\$2,551,032	\$1,596,431

*Being American possessions, exports are no longer included in these statistics.

Seward's Expansion.

The M. Seward & Son Co., New Haven, Conn., one of the old and substantial drop-forging makers in New England, have about completed a reorganization of their business that promises large things. New capital has been added, and the site for a new plant, 400 feet long, has been purchased. The new factory will be twice the size of the present one, and will be equipped with all that is latest and best in machinery. The Seward people have done considerable bicycle work, and are still interested in the business.

Cause for Champagne in Christchurch.

Christchurch, New Zealand, has suffered from the slashings of the price cutter during the last year. Recently the chief slasher "went broke," and his failure so delighted the rest of the trade that they got together and celebrated the, to them, auspicious event by a champagne banquet.

Working Nights on Bells.

It is safe to say there are few, if any, busier plants than that of the Bevin Bros. Mfg. Co., at Easthampton, Conn. They have enjoyed a remarkable demand for the bells and other sundries. As a result they were never so busy, their plant being run nights to keep pace with the orders.

Wagner Will Make Toy Bicycles.

E. R. Wagner, formerly with the C. J. Smith & Sons Co., Milwaukee, has organized the E. R. Wagner Co. at that place to manufacture parts for baby carriages, toy bicycles, etc. They will also make to order sheet-metal stampings of all kinds.

BALKING THE BRITISH

Continued wet Weather Halts Motor Trade—Several Failures Result—Other Items.

London, April 17.—Things are really beginning to get serious in the motorcycle trade, owing to the continuance of bad weather, which affects this branch of the motor industry more than that connected with the production of large cars. The Easter trade was practically lost for this year, and now that the principal holiday has passed it would seem that the bad weather is to continue indefinitely. I never remember so deplorable a season, and although we are past the middle of April the hedges do not show the slightest sign of budding, and the leaden skies and cold winds make one think of November.

The matter is a serious one for makers who have decided to carry stocks against a possible and indeed likely demand. The cycle trade does not feel the pinch so acutely, because, although the production is more, yet the expenses are less. It takes a good deal of time to sell a motorcycle, not because there is a small demand—although so far the demand is hardly so great as was expected—but because the sum to be invested is comparatively large when compared with that spent in purchasing a cycle, and consequently there is a tendency to hesitate more between rival makes. This hesitancy is a thing which the motor salesman often finds it difficult to grapple with successfully. The worst phases of it are apparent with motor quads, and voiturettes, as when big cars are concerned the amount paid does not represent such a comparatively large sum proportionate with the income of the purchaser. However this may be, the fact remains that the elements are so far all against the trade, and that unless there is a very rapid improvement there will be trouble.

At the present time I know of several firms who simply cannot take delivery of motorcycles ordered in the anticipation of good business, and in one case where the agreement has been enforced bankruptcy proceedings have followed. I hear to-day that a well-known London firm which has done well with motors in the past, and more particularly with motorcycles, is in difficulties, owing to having to take deliveries, and that a creditor has applied to the court in the matter, which will, of course, mean the smashing of the concern. The house is really only an agency, and it would seem foolish for manufacturers to press deliveries in the face of the present conditions.

Practically the only English firm which is doing really well with motorcycles is the Ariel Co., Ltd., and this is no doubt in a measure due to the fact that the Ariel tri-cycle has so many good points. The motor being in front of the main axle is not the least of these, as the position tends to prevent the tendency to lift the front wheel

which is so often apparent in machines of this class. The Ariel cannot be said to be a copy of the French makes, and it is pleasing to note that the company are reaping the benefit of their enterprise in striking out on lines for themselves, and profiting by the experience of others, instead of blindly copying what is often bad, and only sold because a number of parts were made and stocked before the manufacturer was aware of the defects of a certain design.

Opinions seem to vary greatly regarding the wet accumulators which some people recommend for tricycles. I have no doubt in my own mind that the wet accumulators give a hotter spark, while showing a lower voltage—that is to say, that a more certain firing is produced by employing wet accumulators giving four volts than is obtainable by the use of a dry battery giving five. The difference, no doubt, lies in the internal resistance of the two types, while the fact that wet accumulators are so easily recharged is an item in their favor. On the other hand, they run down rapidly, even when the car is not in use, and in the case of a motor tricycle they are apt to prove troublesome. A dry battery, when of good amperage, will last a long time.

The cost of dry batteries is a variable quantity. Those in the trade who know their way about can get them for \$4, yielding as much as seventeen amperes, whereas from ten to twelve amperes is considered a good enough reading for the new batteries by the managers of some motor depots. The French makes are at present very much in advance of the English, notwithstanding the fact that three or four British electrical companies are competing for the trade.

Whatever may be the disadvantages of the free motor from the point of view that if the clutch he suddenly applied the front wheel may pick up unpleasantly, and in extreme cases may throw the rider over backward, there can be no doubt that such devices are good in the case of a motor running hot and going on firing on its own account after the switch has been turned off. There have been several accidents clearly traceable to this defect, and if the rider has control of a clutch by which he can throw the motor out of gear he is certainly protected from what has to be reckoned with as a serious danger, especially when riding in traffic after a hard and long run in the open country. One sometimes arrives in a fairly crowded street in some country town after the motor has been working at full power for some thirty miles or so, and then it is that the switch may fail to stop the machine. A clutch in this case is most useful.

At the same time, the application of a clutch renders the machine less foolproof, because, if the rider is unskilful, he will probably come to grief by allowing the clutch to engage suddenly. This applies much more forcibly with a motor tricycle than it does with a car. I have seen a fairly large voiturette turned over backward by the sudden application of the low gear by means of a clutch when the vehicle had been stationary and the motor romping, and as a consequence several motocyclists have come to grief. But this is distinctly their own fault,

RAW MATERIAL FREE

President Wilmot Favors it—Says Tariff now Protects Only Overgrown "Infants."

Among other things, F. A. Wilmot, the head of the Wilmot & Hobbs Mfg. Co., is president of the Manufacturers' Association of Bridgeport, Conn., an organization that is not only very much alive, but that represents a deal of wealth and industry as well.

Evidence of its wideawakeness was given last week, when President Wilmot made known that an important movement was under way looking to a reform of the tariff. The fact became known because of the communication which he addressed to Congressman J. W. Babcock, of Wisconsin, who is fathering the legislative effort to effect the reform.

In these times when trusts are so much talked of the influence of the tariff is little suspected, but that it is of effect Mr. Wilmot's letter makes plain. He says:

"I wish to advise you, as president of the Manufacturers' Association of Bridgeport, who are closely allied with similar interests throughout New England and the Atlantic Coast and Canadian border, that there is a movement on foot to get up a huge petition to Congress to put on the free list iron ore, pig iron, steel billets and ingots, also coal and coke.

"This movement is in consequence of the belief that the industries and plants which produce these raw materials are no longer 'infant industries,' which need a tariff protection; because these materials are sold abroad at much lower prices than the materials can be produced abroad. Yet, because of the preventing of any foreign competition by reason of the high and unnecessary tariff or duty, these 'infant industries,' with their capital stocks ranging from millions to billions of dollars, to the end that they may pay handsome dividends on whatever huge capitalization they may see fit to organize under, are charging for home consumption much higher prices, and, with the additional costs on these commodities at the seaboard by reason of freight charges, are greatly handicapping the seaboard districts in either reaching the market in the Central States or even the foreign markets which their geographical location especially otherwise fits them to compete for.

"The result is simply the handicapping and indirect taxation of an immense district of country and a large proportion of our population, which district contains many of the best manufacturers of articles on which more than the usual per cent of labor is employed per ton, and where also there is an immense vote, an important factor in Presidential campaigns. This present protection is really for the benefit of a comparatively small section of the country centred around Pittsburg.

"We contend that for the good of the country at large and its present administration these conditions should be immediately relieved by the placing on the free list of these raw materials.

"By so doing labor will be greatly benefited, in consequence of the material increase in the export trade in machinery and manufactured articles involving the use of iron and steel castings and of rolled iron and steel, and in manufactures of all kinds using coal for fuel. These would all be greatly facilitated by the possibility of making lower prices as the result of lower costs for these raw materials.

"It will defer the day of 'dull times' and keep the laboring vote with us the longer by keeping labor the longer well and profitably employed. This will in turn tend to keep up the values of stocks, bonds, and all kinds of securities, and delay the coming of a Black Friday; and it will possibly lessen the fall in values when that day does come (as it surely will some time) by placing some slight check upon promotion and speculation in the interval, thus resulting in a more healthy condition of the country at large."

They Don't Like us Nohow!

The German Dealers' Association, which dominates the cycle show in that empire, has set October as the date of their next show. It will be held in the Crystal Palace at Leipzig. For the first time finished bicycles from abroad will be exhibited, but as it rests with the managers to say who may or may not exhibit, an English paper naively remarks that not many American articles are likely to be seen. The gentle Teutons show their teeth whenever American bicycles are mentioned; they do not relish the competition. English wares will, however, be made welcome. The show is open to the trade only, and all who attend must be provided with tickets bearing their photographs, so fearful are the Germans that some one may in some way get the better of them.

For the Information of Exporters.

Our catalogues in English are of very little, if any, use to prospective purchasers on the Continent, writes C. C. King from Paris. They long for catalogues of American products in their respective languages, and for some one who can intelligently explain the details of American products, shipping, freights, customs and payments. They desire letters and printed matter in their own languages. American merchants should not try to make the world read and write English all at once, particularly when they are asking the world to buy of their goods.

Lowell Motors in a Fire.

The plant of the Lowell Model Co., Lowell, Mass., was destroyed by fire on Saturday last. The Lowell Co. was identified with the cycle trade chiefly because of its motors for bicycles.

NEVERLEAK WINS AGAIN

COMBINATION BUSTED!

So Says the Glines Liquid Rubber Company. Read It.

GEORGE W. STRELINGER, Esq., Detroit, Mich.

Providence, R. I., April 22nd, 1901.

Dear Sir:—Please take notice that we have discontinued the manufacture and sale of tire fluid for the following reasons: You are undoubtedly aware, from the past controversy, that we have been one of the most aggressive and faithful members of the Combination formed over two years ago for the purpose of fighting the Buffalo Specialty Manufacturing Company and its "Neverleak Tire Fluid."

We have paid all dues and assessments of the Combination and its attorneys, Steuart & Steuart, and done all in our power to aid them to win; since it has come to light that the Buffalo Specialty Manufacturing Company also owns the Curlin Patent, that covers tire fluid, and since Steuart & Steuart, the attorneys of the Combination, by letter directed to us, dated March 28th, 1901, have declined to defend the suits already brought on said patents, we are convinced that the claims of the Buffalo Specialty Company, upon its patents are valid, and after seeing customers and friends in the trade, subjected to expensive litigation we believe that the interest of our customers and self-preservation require a recognition of the Neverleak Patents and this announcement from us.

We have concluded therefore, to abandon the fight and recognize the rights and claims of the Buffalo Specialty Company, and beg to say to others in the trade that after all this experience we are convinced that the Combination and its attorneys, Steuart & Steuart, will ultimately fail, if they have not already done so.

We have therefore discontinued the manufacture and sale of our tire fluid known as Glines Liquid Rubber, as above stated.

Yours very truly,

THE GLINES LIQUID RUBBER COMPANY,
Per E. C. Glines, Treasurer.

**Reward paid for information against
infringing dealers. Write us.**

**BUFFALO SPECIALTY MFG. COMPANY,
BUFFALO, N. Y.**

WHY APOLOGISE?

for your failure to handle or push the

MORROW COASTER BRAKE ?

You do it every time you utter that hackneyed "It's just as good as the Morrow." Be fair to yourself and your patrons.

SELL THE "REAL THING"—

the original—the Coaster Brake which left off where the others are just beginning—the Morrow.

ECLIPSE MFG. CO., . . . ELMIRA, N. Y.

New York Branch, 105-107 Chambers Street.

THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, MAY 2, 1901.

Should be Forgotten.

There can scarcely be two minds about the burning question of the day.

Cycling's much dwelt upon slump is a thing born of comparison. Had there been no boom, there would have been no talk of a slump.

Could 1894, 1895 and 1896 be erased from the world's record of cycling, the popularity of the cycle would still be regarded as something wonderful.

The number of machines in existence, no less than those in actual use during the riding season, would be considered enormous, and rightly so. So far from having undergone a decline, the pastime would undoubtedly be looked upon as still climbing toward its zenith.

But the boom years cannot be wiped out, and their unhealthy growth did harm, the effect of which is still being felt. How long it will be before this ceases to be the case is the important thing.

The first step in the desired direction is to

forget, or at least ignore, both the boom and the slump.

Neither the glories of the one nor the sadness of the other cut any figure in the future of the business. It must stand on its own bottom, and the sooner this is fully realized the better it will be.

As a business vehicle the bicycle has its recognized place, one from which it can never be dislodged. It can no more be dispensed with than can carriages or street cars or any other of the many means of transportation now in use.

Turning to the opposite page, there is a greater measure of uncertainty regarding the cycle as a pleasure vehicle. It does not now dominate everything else, but no one can witness the outpouring of riders on pleasant days and deny that it holds a very important place in the social economy.

If indications go for anything, the present season promises a marked increase in its popularity in this respect. Whether this will be sufficiently great to stop the talk about the slump it is too early to say. But it should have some influence in this direction, at least.

As an eminent publicist once said, the way to resume is to resume. Similarly, the way to help cycling is to forget both boom and slump and make the most of its still great measure of popularity.

The Mail Order Bicycle.

Having cast their spell over the South and West, the Chicago "mail-order houses" are now projecting themselves Eastward.

Bicycles, as usual, constitute their chief bait. Just now the bait takes the form of a pressing call for "rider agents," who may not only get an \$11.75 bicycle as a reward for distributing a thousand catalogues, but who may also earn handsome returns by selling bicycles to their friends—and enemies.

That such tempting offers will not fail of some effect seems certain. The result will be a crop of grown and half-grown and childish "curbstone agents" who, without responsibility or expense or thought of the good of the business, will cut into the earnings of those who can least afford it—the dealers in the country towns.

This mail-order game is even more baneful than the bargain-counter plague which once afflicted the cycle trade. It has honey-combed the South and West, and caused more or less discomfiture in all retail trades; and perhaps after the East has had a good taste of it the growing resentment against

those primarily responsible for it—the manufacturers who supply the goods—will attain such force and volume that when the "taking of sides" comes the reckoning will be scarcely pleasing for the makers who attempt to blow hot and cold in the same breath.

Although cursing the visible cause of his discomfiture, the retailer has not gone deeper into the subject. When he does, and thus locates the source of the "mail-order" supply, it will be odd if he does not force the issue and range himself on the side of his friends—those makers who deal with him alone. The mail-order houses have between 100,000 and 200,000 bicycles to dispose of, and, however widely scattered, their sale means just so much profit taken from the coffers of the legitimate dealer. It is cause enough to make him think.

"Infants" and the Milk Bottle.

What sounds mightily like a first shot that will ultimately awaken the echoes of all America is that fired by the Manufacturers' Association, of Bridgeport, Conn. As its president, Frank A. Wilmot, of the Wilmot & Hobbs Mfg. Co., has pulled the trigger, so to speak. His letter, urging that the protective duty be removed from steel billets and other basic raw material, is published in another column. It states the case plainly and well, so plainly, indeed, that the gage of battle to the billion dollar steel trust is too thinly veiled to escape observation. In fact, it appears mightily like the first gun in the long expected campaign that is to bring the independent manufacturer in united array against the over capitalized and top heavy trusts.

The country is just now so impressed by the exploits of J. Pierpont Morgan and his billions that at first thought the hugeness of the task which the Bridgeport manufacturers have set for themselves will cause the average man to shake his head. But it is as certain that the Bridgeport association is too rich in capital and brains not to have measured its distance and reckoned the cost.

The fact that the trusts are able to sell their wares abroad for less than they sell them at home, as stated by President Wilmot, shows the folly of the protection which they crave and are accorded. When this fact is pounded into the common people, the awakening will not be long delayed.

The "infant industry" cry is a specious one. There are few "infants" left in this country, and the tariff which is supposed to protect them from the foreign wolves is

merely a mask for the political demagog. Take bicycles as an example. When the industry was young a duty of 45 per cent was imposed. Despite the fact, the English bicycle was never so numerous or so conspicuous in this country. The effect of the tariff was to force wheelmen to pay the duty and a little more when they purchased bicycles. The duty was never removed—it is still in effect—but that it served a part in ousting the English bicycle from these shores is too empty for belief. There comes a time when industries, like babies, cease to be infants. They attain manhood, and manhood has no need for milk bottles. The tariff is something of a milk bottle.

When the cycle industry attained manhood its very size and strength forced the foreign bicycle out of the market. The tariff played no part in it and it plays no part to-day, except an aggravating part. There is no foreign competition that we fear or cannot meet, and the existing but mildewed duty returns only to vex those who seek to sell American bicycles. The foreigners cannot or will not understand why we maintain a fence which they cannot hope to scale, while we enter through their open, or half open doors. It is the pet argument of our English cousins. It is the cause, or one of the causes, why the Germans seek to boycott American bicycles and other goods, and why they cry out to their government for a fence even higher than the needless structure we have created. With reason, they fear us. We have no reason to fear them.

This is a side of the protective tariff with which the cycle trade is familiar. The Bridgeport association points out another and more far reaching phase of it. The raw materials which it enumerates are nearly all of use and concern to the cycle trade. If they are admitted free the cycle manufacturers, in natural sequence, must profit by the lessened cost to them of the metal requisites that go to make up their bicycles. To this extent, at least, the cycle trade must be interested in the Bridgeport movement.

The Call for Cushion Frames.

It has been a long time since the cry of scarcity has been raised in the cycle trade.

Makers years ago learned the importance of being ready at the beginning of the season, having suffered serious losses through making a late start. Consequently they placed forehandedness before almost everything else.

It is the more surprising, in view of this,

that there should be heard now complaints of slow deliveries.

As far as the standard patterns are concerned, there has been little trouble. Perhaps the bad weather had much to do with this, for there were many concerns which made haste at the fag end of the manufacturing season instead of getting an early start.

It is the three C's, as they are popularly termed, that have caused most of the trouble. And of these the chainless and the coaster-brake have been but minor offenders.

The cushion frame, however, has caused much disquiet to not a few dealers. Shipments have lagged behind orders very perceptibly, and no amount of urgent requests has availed to hurry matters.

Dealers who have taken up the sale of cushion-frame machines for the first time, or made a strong push on them only this season, have met with unexpected but pleasing success.

To many buyers the cushion, frequently in conjunction with the coaster-brake, has appealed as the something new so long looked for. Viewed with favor at first, closer acquaintance confirmed this impression and orders followed.

Whether it was that the sales have been unexpectedly large or work on the machines was not started soon enough—or both reasons combined, as is probably nearer the truth—the result has been the same.

The factories have been unable to ship on receipt of orders, or even within a few days. Some machines would be sent on account, as it were, with promises of greater promptness a little later.

The delay has not been great enough to be disastrous, scarcely serious. But it has been annoying, and but for the long wet spell there would have been a very different tale to tell.

At the present time dealers are assured that after the middle of the present month there will be no further trouble. With this assurance they are forced to be content.

Price Cutting Unnecessary.

Not the least regrettable part of the system of reckless competition which has prevailed for so long in the bicycle business is the growing belief that it was as unnecessary as it was prolific of evil.

The trade may well be likened to a toper awakening from a protracted debauch. For years it has been wasting its substance, losing its opportunities, relinquishing its

chances of making a legitimate and much-needed profit. And all for what?

That an immense business might be built up, to be diverted, in great part, from its natural beneficiaries into channels altogether foreign and frequently hostile.

It was all done under the plea of necessity. Other articles of merchandise might be disposed of in a legitimate manner and to the profit of the merchants. But it was different with bicycles. If the principles governing other lines of business were applied to the cycle trade, nothing but disaster would follow.

Of course, this line of reasoning was as untrue as it was absurd. Admitted that there was some difference between twenty-five pounds of nails and twenty-five pounds of bicycle; but it certainly was not so great as to change or override the fundamental laws which govern business of every kind and nature.

At the present time the majority of dealers are conducting their business on legitimate lines. If they cannot make a sale at a profit they deem it better not to make it at all. Better to miss such a sale than to depart from rules dictated by common sense and laid down inflexibly by other merchants.

The surprising as well as the gratifying part of it is that no disaster follows the adoption of such a policy. Buyers regard it as an entirely natural one. In fact, they are in not a few cases disposed to wonder why it was not adopted long ago.

Both the price and the percentage of profit on bicycles have now reached a point where the water has all been squeezed out. As buyers have no objection to paying the price, so retailers can no longer afford to forego even a part of the profit. Their existence depends on their getting every particle of it.

Whatever excuse there may have been in the past for price cutting, there remains none at the present time.

Meeting Mail Order Competition.

Away down in Clarksville, Tenn., the firm of Owen & Moore is meeting "mail-order" and bargain-counter competition as it should be met. Their leader is one of the best known high grades, but as the "mail-order" bicycle is apparently making itself felt in their locality they advertise prominently not only their high grade, but a \$12 bicycle, which, they state, "is better than that sold by a mail-order house at \$12.98—and you pay no express charges on ours." That "and you pay no express charges on ours" is the keynote of the situation.

TROPICAL TRADE

**How the Bicycle has Conquered Hawaii and is Conquering Japan and the Philippines—
Roads Improving, Natives Interested.**

Since the summer of 1899 I have been travelling in Japan, the Philippine Islands and the Hawaiian Islands. In each of these countries I noticed a very decided improvement in the demand for and use of bicycles. I know that when I first visited these countries there were not many bicycles in use. At the present time there are large numbers in service, and the prices are ruling moderately now, so that the distribution of the wheels is larger. At first the Japanese, Filipinos and Hawaiians did not take very well to the bicycle. I recollect seeing many of them learning. They had no fear of the wheels in any of the countries, but they seemed to think it would be impossible to ride. I know that I often stood by to watch a beginner, and his friends would collect about him to ridicule his every movement. A fall would start them all to laughing so heartily that it would be some time before they would quiet down. The native takes it all in fun, too, and when he falls he laughs with the others.

SOLDIERS PLANTED THE SEED.

For many years the trouble about the general introduction of the wheel was that no one was enterprising enough to carry a line of cycles. I know that when I first arrived in the Philippines they had a very limited stock on hand, while now there are thousands of them in the different stores that carry cycling goods. In the Hawaiian Islands one may purchase any type of wheel he desires at practically the same value as the American market cost. In Japan there are numerous agencies that deal in bicycles, but the prices are rather high, and this prevents their general usage. The growing popularity of the bicycle in the tropics and in Japan is largely due to the arrival in these countries of officers and enlisted men of the United States army who had the forethought to bring their wheels to the foreign lands with them. I accompanied a military expedition to the tropics, and observed that quite a number of officers and soldiers had their wheels. The men connected with the Signal Corps particularly had bicycles; they knew the value of light and easy transportation in the field, and the lesson taught by these army people in the line of cycling counted for much toward the opening of the bicycle business in the new possessions.

Some of the wheels found their way into Nagasaki and other points in Japan, and when the writer was in the latter place a few weeks ago he noticed that the Japanese were using the wheel not only for pleasure, but for business purposes to a very considerable extent. The Japanese placard their bicycles with advertising signs, and by at-

taching devices use them for hauling freight; they also rent the wheels to tourists and others, and in fact are doing a good business with them.

ILOILO AND MANILA IMPORTANT.

AS TO THE AGENCIES.

As soon as the people of these countries observed the benefits of the bicycle for pleasure and for commercial purposes they commenced to call at the stores for them. Dealers in vehicles, sewing machines, hardware and the like were called upon for bicycles. This demand has resulted in the placing of stocks in a great many agencies throughout the countries mentioned. These agencies seemed to have come into existence simultaneously in the various localities. In the Philippines, Iloilo is the distributing point, and as soon as a few thousand wheels were sent to the leading agencies in that place these agencies in turn distributed the wheels throughout the leading cities and towns of the islands in the Visayan group. Manila is, of course, the distributing centre for the great island of Luzon and those islands which form the northern section of the Philippine Archipelago. Honolulu is the distributing centre for the Hawaiian Islands. In Japan there are several points from which the bicycles are distributed, but I believe that Nagasaki is one of the principal ones.

HOW PHILIPPINE ROADS ARE BUILT.

One of the impediments to the general use of bicycles in all three countries mentioned has been due in the past to the condition of the roads and bridges. Possibly the worst types of roads and bridges were in the Philippines. I know that it was difficult to even get a vehicle drawn by oxen or horses over some of the roads, and I often wondered how the bicycle could be used at all. But this was two or three years ago, at a time when no one thought of anything but war. The whole country was dodging bullets or engaging in the turmoil, and there was no time to build bridges or construct roads. I travelled hundreds of miles with military forces over the islands of the Philippine group when nearly all of the bridges were destroyed by the fleeing insurgents. We forded all rivers, often as many as twenty a day, and hundreds of roads had to be repaired before the army wagon trains could be got over them. I remember on one occasion we worked four days getting a train of wagons ten miles. The wheels sunk to the hub everywhere, and we had to use all the mules of four or five wagons to pull one wagon through. In the course of time, as the native troops were captured, the prisoners were set to work breaking stone with which to grade the roads. About two years' work on the roads all over the Philippines by thousands of native prisoners have wrought wonderful alterations. Not only thousands of tons of stone have been broken and used for making firm roadbeds for all of the highways, but beach sands and small pebbles, mixed with pulverized rock and cement, have been put down, resulting in the

formation of roads as smooth and as hard as a wood floor. The majority of the roads throughout the islands are now in fine shape. The bridges, too, have been rebuilt. Although all are not modern iron or steel affairs, they are in good shape for cycling. The most of the bridges are constructed of native lumber according to the Filipino ideas, but the floors of the bridges are even and rideable. The result of these improvements has been the stimulus of the bicycle business.

HAWAIIAN ROADS WELL KEPT.

In the Hawaiian Islands I found that the majority of the roads were most excellently planned and finished. There are miles after miles of roads which were evidently laid out with the intention of accommodating tourists, for, be it understood, thousands of people from all parts of the world visit these islands during the year. The roads in the country are in fine order, while in the cities and towns they are as good as can be found in any city in the world. They are not only smooth and hard, as a rule, but they are well watered and maintained. One may see many wheelmen and wheelwomen on the streets of Honolulu and through the country. Bicycles without number are in service in these islands, and all of the builders of the best and improved makes are represented here.

Japan is by no means behindhand in the road problem. The Japanese are believers in good roads, and they employ large numbers of persons throughout the year to keep the roads in perfect order. The result is, of course, favorable to cycling. In fact, I know of no part of the world in which bicycling can be conducted in more favorable circumstances than in the Far East and in the tropical possessions of America.

MANILA'S LONE MANUFACTURER.

It may be interesting to add that there is a concern in Manila which makes bicycles to order in a large scale, and that is doing a good business. Of course, any of the little repair shops can make a bicycle to order, but not at as low price as the wheel can be purchased from makers of many wheels. But the concern referred to has put in machinery for doing special work, and they manage to turn out a fairly good wheel. I looked about in Honolulu and found several shops where they built carriages, but found none in which bicycles are manufactured. In Nagasaki there are three or four bicycle repair shops and a number of agencies, but no one has as yet attempted to build bicycles.

I have received letters from makers of wheels in America, and in nearly every instance the inquirer asks as to the number of Americans in certain places; apparently he bases his calculations of sales accordingly. This is a mistake, for there are many others than the Americans who ride bicycles. In the Philippines the larger proportion of bicycles in use are owned by natives. The native can learn to ride quickly, and he is proud of his wheel. He has plenty of time on his hands, and he uses much of it in polishing his bicycle. He takes particular

care of it. Many of the Filipinos are very ingenious, and will take the bearings apart and put them together again with perfect adjustment. The Japanese do not seem inclined to overhaul their wheels so frequently, and I observe that they permitted the framework and the mechanism to get soiled and oily. In the Hawaiian Islands everybody appears to take his wheel to the repair shop for the monthly cleaning. But in all of the places the native residents are the ones who use the most wheels. There are, of course, many Americans in Honolulu; but, from personal observation, most of the bicycles on the streets are ridden by natives. I saw in Nagasaki that many Japanese were riding. So the number of American or possible foreign buyers of wheels in these countries amounts to but little in determining the size of the demand. The market is unlimited. The natives are the best buyers, and they buy freely. They want the opportunity to buy, and that is all. They have never had the opportunity until lately, and they have been quick to take advantage of it. The bicycle makers of the world are benefiting by it, and will benefit still more. G. D. R.

The Wyoma-E. Z. Litigation.

Several weeks since the *Bicycling World* reported the institution of a suit by the Reading (Pa.) Automobile and Gear Co. vs. Edward E. Ziegler, of Philadelphia, claiming infringement of their patents covering the Wyoma coaster-brake. The suit was brought not against the Reed & Curtis Machine Screw Co., Worcester, Mass., who make the E. Z. brake, but against Edward E. Ziegler, the patentee, under whose license the Reed & Curtis Co. operate. The following week, acting on advices from Mr. Ziegler's lawyer, it was stated that Mr. Ziegler had filed a counter suit against the Reading Co., alleging infringement of his patents covering the E. Z. coaster-brake. The publication of the latter statement brought a prompt and emphatic denial from the Wyoma people. They denied positively that proceedings of any sort had been filed against them. Mr. Ziegler's lawyer was informed of the fact, but as late as Saturday last he reiterated his assertion that action had been brought. Asked for the necessary dates and courts, he maintains a respectful silence, making it appear that the Reading concern's denial was well founded. Their suit is based on patent No. 33,788, December 13, 1900; No. 670,575, March 26, 1901; No. 671,409, April 2, 1901.

Bargains in Chains.

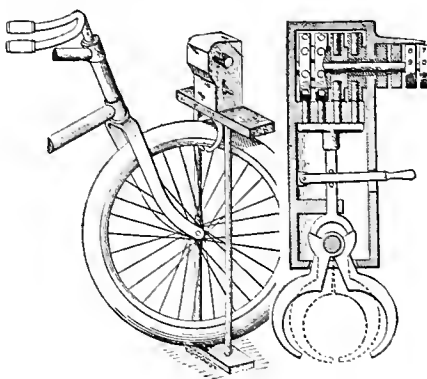
Having got their new guaranteed-not-to-budge chain coming through in quantities to keep pace with the demand, the Indiana Chain Co., of Indianapolis, are offering their chains of previous patterns at prices that should move them in a hurry. The mere statement of the fact should be sufficient to arouse a volume of inquiry.

Curtis's Combination.

Further information regarding the automatic locking rack invented by C. W. Carter, of Minneapolis, Minn., mention of which was made in last week's *Bicycling World*, indicates that it is worthy of the attention it has attracted. The accompanying illustration shows its ingeniousness. As is apparent, it operates on the principle of a combination safe. The rack has ten thousand combinations, and the only burden placed upon the wheelman who uses it is that he remember his combination of numbers. It is thought there are fewer wheelmen who will forget their combination than there are those who lose the keys to their own locks or lose the checks given them by wheel checkers.

This new invention is interesting from a patent standpoint. It has been granted nine basic patents, and is the only combination lock which sets the combination when locked. All other combination locks must be sent to the expert to have the combination changed.

The combination lock consists principally of four tumbler wheels inside of the case,



which are revolved by means of the four dial wheels on the outside, each dial wheel revolving its own tumbler wheel.

Each tumbler wheel has a number of holes drilled in its periphery, corresponding to the number on the dial wheel, and each hole is fitted with a loose pin. On the top of the locking rod is a crossbar to which four pins are attached, said pins exactly filling four holes drilled in the casting under the tumbler wheels when the lock is in an open position.

To lock the device, the four dial wheels are revolved until any number desired is brought into position—for example, 1888. In lining up this number on the dial wheels you have also lined up the corresponding holes on the lower side of the tumbler wheels, causing the four loose pins therein to rest on the four pins of the crossbar.

If you now pull down the lever, causing the jaws to close upon the rim of the wheel, the crossbar and pins above referred to are also moved downward, causing the four pins to drop from the tumbler wheels and occupy the holes just vacated by the crossbar pins.

It is obvious that with the numbers in that position the device is not yet locked;

consequently one or more of the dial wheels should be turned to alter the combination. Upon trying to release the wheel it will be found to be securely locked, as the loose pins cannot be raised until the four empty holes in the tumbler wheels are again brought into position to receive them. To accomplish this the dial wheels will, of course, have to be turned to 1888, the original number.

To Make Hafelfingers.

Arrangements for the manufacture of the Hafelfinger motor bicycle on a considerable scale are now in progress, and it is expected that the necessary papers will be executed this week. The chief party in the deal is one who has been long and intimately identified with the trade.

The Hafelfinger bicycle will be recalled as the one which created such a flutter at the last New York Cycle Show. Its striking originality, coupled with its simple and attractive design, set the whole show abuzzing.

Emil Hafelfinger, the inventor, is a particularly modest, sane and clear headed young man who deserves the success now in sight. While awaiting it he has kept right on perfecting his bicycle. One of his late improvements is an automatic lubricator. The oil is contained in the top tube of the frame and is fed to the motor through a small tube, the arrangement of the device being such that it may be regulated to feed any desired number of drops of oil per minute, thus avoiding waste and dirt.

No Stamps Required.

The exact terms of the decision nullifying the stamp tax on export bills of lading, as promulgated by Commissioner Yerkes, is as follows:

"I have to inform you that on the 15th inst. the United States Supreme Court, in the case of the United States vs. Fairbanks, decided that—

"A stamp tax on a foreign bill of lading is in substance and effect equivalent to a tax on the articles included in that bill of lading, and therefore a tax or duty on exports, and in conflict with the constitutional prohibition."

"In obedience to this decision collectors of internal revenue will no longer require stamps to be affixed as required in Schedule A, act of June 13, 1898, to—

"Bills of lading or receipts (other than charter party) for any goods, merchandise or effects to be exported from a port or place in the United States to any foreign port or place."

Second Hands Still Sell.

Second-hands are not dead stock even yet. A concern which put a few in a window, marked low, had the pleasure of seeing them snapped up one at a time by buyers on the lookout for bargains. The idea is worth imitating.

SCRAP HEAP MYSTERIES

Wherein the "Heaps" of To-day and of Long ago Differ—An Instance Recalled.

As cycle construction has long since passed the experimental stage, the factory scrap heap has lost most of the interest it possessed in the old days.

It is probable that even an exhaustive search through one of these heaps—if such a thing would be permitted even now—would reveal nothing particularly startling. The secrets they formerly concealed, and which accounted for their being most carefully guarded, no longer exist. The experiments, the mistakes, the radical changes made with great frequency in nearly all factories—these have passed into the limbo of forgotten things.

But a very different tale was to be told during the half decade or more following the introduction of the safety. There were cases where almost as much material went into the scrap heap as into completed bicycles; and scarcely a factory existed that did not have a formidable accumulation of refuse. Only the enormous profit on the machines which got into the rider's hands made it possible for many makers to stand up under the load.

The disposal of this scrap was a matter of some difficulty. Dealers in old metals were always willing to buy it, of course, and they nearly always got it in the end. But it was impossible to learn where the different lots would go, and no maker wanted such a plain record of his troubles as was contained in this scrap wandering around the country, liable at any time to fall into the hands of rivals.

To avoid any unpleasant results it was the custom to destroy the identity of the rejected material as far as it was possible to do so. Small parts were hammered and chopped until they were scarcely recognizable. Large pieces, such as broken or imperfect frames or parts, handle bars, forks, etc., were treated in much the same manner. If it was not always possible to destroy all evidences of their origin, the parts were at least left so they could not be used.

Occasionally, however, the work is not done as thoroughly as it should be. One dealer was surprised and considerably amused some years ago at an experience of this kind. In the town was a large iron works which used an enormous quantity of scrap metals. One day a boat arrived loaded with scrap, and as luck would have it a considerable portion of it was the refuse from a bicycle factory of some prominence. It was unloaded along with the other stuff and dumped in a corner of the yard until it was time to use it.

Some of the laborers discovered a lot of bicycle parts among the scrap, and soon the news had spread pretty well over the works.

Whenever an opportunity occurred thereafter a number of the men employed in the works searched through the scrap heap for parts that could be used. Several of them managed to dig out complete sets of fittings, and with these they went to repairers and had machines made up. Probably half a dozen all told were turned out in this manner.

The amusement this afforded to the dealer in question came about in this wise: His nose was a little out of joint by reason of losing chances of making sales to these men; consequently he was not overly anxious to see the machines turn out well.

Therefore, when one of them was brought in to him with a broken frame, he assumed more solicitude than he really felt. The breakage was due to the giving way of one of the forgings, and the rider wanted to know, naturally, why it gave way, and whether similar mishaps were likely to happen. It did not take much persuasion on the part of the dealer to talk the man into buying a new machine; a little playing on the danger of using parts that were defective—for if they had not been they would not have been thrown away—did the trick.

The point was lost on the rider, however. It was that this particular forging was defective in design, and of the thousands of them put out by the original concern scarcely one had failed to break. The balance of the forgings, amounting to thousands more, were condemned, but continued to do harm even after this.

This Thomas had no Doubts.

Whenever there is doubt or faintheartedness regarding motor bicycles, the array of testimony which the E. R. Thomas Motor Co. presents in their advertisement in this issue will go far to supply the necessary backbone.

The letters are all readable and of effect, and their presentation at this time must go far to strengthen and spread not only the Thomas interests but the interests of motor bicycles generally. It is but one of the many ways in which the Thomas people have spent good money in a common cause, and while they do not pose as philanthropists, the fact remains.

When the motor bicycle attains that position which it does not seem that it can escape, no name will be writ higher or in more glowing letters than the name "E. R. Thomas." This may sound fulsome praise, but it is richly deserved.

The manner in which the Thomas Co. threw itself, heart, soul and purse, into a movement marked by hesitancy and doubt, and gave it life and strength, must command the respect and admiration of even their competitors and of all other men who are disposed to give credit where credit is due.

According to a floating item, a plant for the manufacture of bicycle and vehicle tires is to be erected in La Crosse, Wis.; the company is said to be in process of formation, but as yet no names are given.

ALL RESTRICTION REMOVED

Passage of Doughty Bill Strengthens the Rights of the Motorcycle.

Governor Odell having signed the Doughty "Automobile bill" on Thursday last, motorcycles are now free to use without let or hindrance any street, park, parkway or highway in the State of New York save those set apart by law for the exclusive use of horses or light carriages.

In defining the term "carriage" the law is very sweeping. It says: "The term 'carriage' as used in this article shall be construed to include stage coaches, wagons, carts, sleighs, sleds, automobiles or motor vehicles, and every other carriage or vehicle used for the transportation of persons and goods, or either of them, and bicycles, tricycles and all other vehicles propelled by manumotive or pedomotive power, or by electricity, steam, gasoline or other source of energy."

Again, the law states: "The commissioners, trustees or other authorities having charge or control of any highway, public street, park, parkway, driveway or place shall have no power or authority to pass, enforce or maintain any ordinance, rule or regulation by which any person using a bicycle or tricycle, an automobile or motor vehicle, whether the same be propelled by steam, gasoline, electricity or other source of energy, shall be excluded or prohibited from the free use of any highway, public street, avenue, roadway, driveway, park, parkway or place, at any time when the same is open to the free use of persons having and using other pleasure carriages, except upon such driveway, speedway or road as has been or may be expressly set apart by law for the exclusive use of horses and light carriages." The Park Commissioners of the city of New York are, however, authorized to set such limits of speed as in their judgment may be deemed best. On all other highways automobiles are limited to a speed of eight miles per hour in built-up sections and fifteen miles in sections not built up—a most elastic definition.

All automobiles are required to be provided with bells, horns, brakes and two white lamps, and also a red light showing in the reverse direction. They are also required to be registered with the Secretary of State, and to have the owners' initials painted in letters at least three inches high on the back of the vehicles.

These stipulations seem to make plain that motor-propelled cycles are not specifically included in the category of automobiles, and that the source of power does not, ipse facto, change the nature of the vehicle—a point for which the *Bicycling World* has contended.

So far as it applies to motorcycles, the immediate and chief effect of the law is that it opens the parks to their use. Hitherto their right on the other public highways has not been questioned.

The Retail Record.**EMBARRASMENTS.**

Worcester, Mass.—James J. Casey filed petition in bankruptcy; liabilities, \$1,693.61; assets, \$250.49.

FIRES.

Newark, N. Y.—Hoffman & Robinson's store damaged to the extent of \$200; not covered by insurance.

NEW STORES.

Paris, Ill.—B. W. Sober.
Union, Ia.—H. C. Chapin.
Pelham, Ont.—P. G. Knoll.
Beaver, Pa.—Frank P. Gray.
Princeton, Ind.—Dr. Gulmore.
Natick, Mass.—T. J. Gleason.
Wellston, O.—Jesse Morrison.
Springfield, Ill.—J. A. Morton.
Delavan, Wis.—E. J. Stanson.
Mazeppa, Minn.—Albert Sugg.
Montpelier, Vt.—W. H. Carroll.
Bangor, Me.—L. W. Broadhurst.
Sandy Hill, N. Y.—L. E. Sexton.
Excelsior, Minn.—A. E. Phillips.
Port Huron, Mich.—Alfred Fair.
Duluth, Minn.—Charles S. Reeves.
Minneapolis, Minn.—N. G. Johnson.
Stevensville, Ont.—Glenny & Storm.
Bay City, Mich.—Newcomb & Biggs.
Fultonville.—Henry Kling, repair shop.

Canandaigua, N. Y.—Charles Schauble.

Arcade, N. Y.—E. F. Stinson, Miller Block.

Pascoag, R. I.—Fred Marsden, repair shop.

Lawrence, Mass.—J. Fernland, Dracut street.

Fishkill Landing, N. Y.—Orville R. Conkling.

Manchester, Conn.—C. D. Barrows, repair shop.

Cornwall, N. Y.—Walter Weeks, repair shop.

Falmouth, Mass.—C. F. Godfrey, repair shop.

Buffalo, N. Y.—Kuck & Bryant, 45 Niagara street.

Deposit, N. Y.—C. H. Stow and Leslie Carl, repair shop.

Machias, Me.—Fred Austin and D. Field, repair shop.

Central Islip, N. Y.—Joseph Downs, branch repair shop.

Duluth, Minn.—Wieland & Wade, new downtown store.

Poultney, Vt.—Frank Jones, Bessey Building, Main street.

Peterborough, Ont.—F. W. Vanderwater, 339 George street.

North Attleboro, Mass.—Joseph De Blois, Broad and West streets.

Oswego, N. Y.—George Gwilt, corner West Second and Cayuga streets.

CHANGES.

Coffeyville, Kan.—J. C. Pinger, sold out.
Kewanee, Ill.—A. E. Snow, discontinued.
Des Moines, Ia.—H. C. Hammond, sold out to A. S. Kenyon.

Highwood, Ill.—Mr. Denman sold his interest in Webster & Denman.

Sisterville, W. Va.—Sisterville Hardware Co. changed title to Berry Hardware Co.

Chattanooga, Tenn.—Carlin Furniture Co. has entered a petition to incorporate as the Carlin Furniture and Mfg. Co.

San Antonio, Tex.—W. F. Crothers & Co. succeed W. F. Crothers.

Bellefontaine, O.—Nicholas & Milligan succeed Nichols & Harmer.

Palmyra, Pa.—Ginrich & Lanck succeed J. M. Ginrich.

Holly Springs, Miss.—Booker & Brown succeed E. B. Booker.

San Bernardino, Cal.—Thomas Hadden Co. succeed Wilcox & Rese Co.

Lebanon, Ind.—Jones & Adney succeed M. D. Jones.

Central Lake, Mich.—Walter T. Swasey Co. succeed Carl Stroebel.

What Cheer, Ia.—Myer Carl succeeds Hueston & Carl.

McGregor, Tex.—J. P. Cunningham Co. succeed J. P. Cunningham.

Holland, Ia.—H. H. Freericks & Co. succeed F. Strube.

Northampton, Mass.—Hampshire Cycle Co., Crafts avenue, R. A. McAlpine, proprietor, has been sold to W. H. Kimball.

South Framingham, Mass.—Framingham Cycle Co. sold to W. H. St. George.

Stamford, N. Y.—Fred More, of Hobart, sold out to F. H. Marshall.

Cambridge, Mass.—E. H. McDuffee, moved from 11 Prospect street to 17.

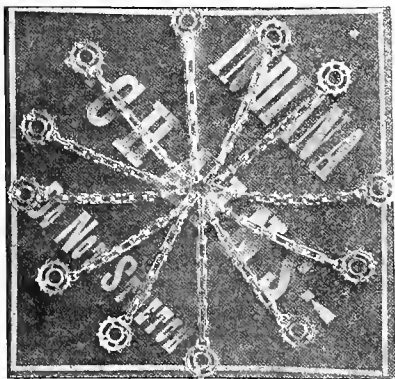
Jersey City, N. J.—Hudson County Bicycle and Automobile Co., Boulevard, near Duncan avenue, succeed William V. Garrison.

Ansonia, Conn.—William Gaffney, closing out bicycles, but will continue repairs and sundries.

New Britain, Conn.—J. O. Deming sold out to Leon A. Gladding & Son, in connection with their line of bicycles.

connection with their line of bicycles.

Cadillac, Mich.—Ed. Kennedy sold out to Discher Bros.



A HIGH CLASS $\frac{1}{8}$ CHAIN

Our New Pattern. Most Accurate, Easiest Running, Straightest and Strongest.



If you want a reliable chain, a chain that will save you trouble and make you money by staying sold when once sold, we can interest you. We recommend our $\frac{1}{8}$ chain on large sprockets.

EVERY LINK IS RIGHT.

INDIANA CHAIN CO., INDIANAPOLIS, IND., U. S. A.

We are offering a few of our old style chains at cash prices that will surprise you.

MOTORCYCLE ECONOMY

French Expert Demonstrates it Effectively—
First Trial of Alcohol as Fuel.

Paris, April 12.—What is the working cost of a motorcycle? Is it cheaper than a bicycle? Or is the comparison too absurd? At first sight it does not seem as if it is possible that a motorcycle can work out more cheaply than a bicycle, which costs scarcely anything for keep, except for tire repairs and such insignificant items, but if you look in to the matter you will find that the motorcycle need by no means prove much dearer in the long run.

As for first cost you can get a second hand motor bicycle over here for very little more than you would pay for a high grade pedal propelled machine. I would not advise anyone to buy a second hand motor bicycle unless he knows enough to avoid the pitfalls that are set for the unwary, and can diagnose the pistons and valves, and have enough mechanical skill to set right the little troubles that may have caused the previous owner to get rid of his bicycle at a sacrifice. If one can do this you may hit on a bargain. If you can't you will be burdened with a sort of white elephant. There are plenty of advertising "windows" anxious to palm off on unsuspecting novices a collection of motorcycles for which their alleged deceased partners have no longer any use. It is only expert motocyclists who can distinguish between bargains and swindles, and the novice would be wise to invest his money in a new machine.

A good many cyclists hesitate to take up the motor machine because they fear that its unquenchable thirst for spirit will make a hole in a modest income, and in times gone by this was certainly true, but motors are being made so economical nowadays that the consumption has been reduced by quite 50 per cent. Besides, the working cost depends very much upon the rider himself. A striking example of this was seen in the tests of alcohol vehicles, that took place on Monday, between Paris and Roubaix, when four motorcycles competed—two De Dion quads and two Werner tandems.

One of the De Dion machines was driven by Cormier, who showed his skill in the manipulation of motors by getting the lowest consumption in the gasoline trials between Paris and Meulan last year, and on Monday he was equally successful, and covered the course with a consumption of only 7 litres 250—12.74 pints—of carburetted alcohol, consisting of 50 per cent of alcohol and 50 per cent of benzine, for 172 miles, of which fifty were over some of the worst roads imaginable. It is true that he took nearly fifteen hours to ride the distance, and only got this remarkable result by nursing his motor, admitting just enough spirit to produce the required power, but it shows what an ex-

pert can do in keeping down his consumption and reducing his working cost to the lowest possible limit. Cormier thus carried himself and a passenger for 172 miles at a cost of less than \$1. This is the point that makes me ask whether the motorcycle is not cheaper than the ordinary bicycle. Cormier had no other expense but his spirit, but how much would two persons have spent on a bicycle ride from Paris to Roubaix? They would take two days to do the journey, and would probably spend more than a dollar upon alcohol in another form.

This extremely low consumption was obtained with an ordinary $2\frac{1}{4}$ horsepower motor. By increasing the power and augmenting the speed, you can, of course, burn up as much spirit as you like, and after Cormier's performance it is curious to see Osmont doing the same journey on a De Dion quad with 22 litres 450 of carburetted alcohol



NEW YORK BRANCH: 214 216 WEST 47TH STREET.

—4.93 gallons. One was doing his best to economize consumption, and the other had no idea but to get to Roubaix in the quickest possible time. Osmont took six hours instead of fifteen to cover the 172 miles, and his consumption was more than three times that of Cormier, from which it is easy to calculate the rate of progression in the consumption of spirit with an increase in speed. A Werner tandem, which did the distance in eleven hours, burnt up $10\frac{1}{2}$ litres of carburetted alcohol.

The average motocyclist is not such a scorcher as Osmont, nor so careful with his spirit as Cormier, but it is easier, safer and pleasanter to learn to be an economical rider than to blossom out in a corruscating speed demon, the more as to the increased amount of spirit consumed may be added the fines, damages, and personal deterioration to which he is liable for furious driving on the high roads. Besides a saving in spirit, the economical driver preserves his machine from excessive wear and tear; it lasts much longer, and the owner is put to less worry

and expense through motor and tire troubles. The average of $11\frac{1}{2}$ miles an hour maintained by Cormier in the Paris-Roubaix tests is quite sufficient for ordinary touring purposes, and if the rider's expense for two people do not exceed a dollar for fifteen hours' riding, who can say that the motorcycle is a costly machine?

These tests will, no doubt, do a lot of good in bringing round people to see that they need not spend a lot of money on a motorcycle. The machine is growing enormously in popularity, and any number of them will be seen on the roads this summer. During the run from Paris to Roubaix I was struck with the number of motorcycles on the road besides those used for paeing the cyclists in the big race, which was held at the same time as the alcohol tests, and here, by the way, there was another interesting comparison between the performances of the cyclists and the motocyclists, the winner, Lesna, taking more than twice as long as Osmont to cover the distance.

The motor bicycle looks like becoming very popular this summer. I ran across several of them on the northern roads charged with luggage, showing that the riders were on their Easter holidays, and the big towns of Amiens and Lille are regular hives of motocycledom. The costumes are showing some modification this year, and instead of the ordinary cycling dress of black leather, the rider wears loose, baggy pants, gathered down tightly over the tops of his boots, so as to save his lower extremities from oil, mud and dust. The jacket is longer than usual, and is well fitting, the arms coming well down over the wrists. The cap is also of leather, with ear flaps that are turned down to protect the head in bad weather. The favorite color is yellow leather, as it shows the dust much less conspicuously than black. This costume can be worn over an ordinary dress, so that on arriving at his destination, the rider can peel off his outer garments and make a presentable appearance. Most French motocyclists, however, would go to a ball in their leather suits. They think it gives them a distinction, don'tcher know.

Here's a Rare Old Veteran.

He's a rare agent who nowadays handles but one brand of bicycles, and a rarer one who makes capital of it. Ipso facto, Lincoln Holland, of Worcester, Mass., is a "rarer one"—and he has been in the business some twenty years, too.

He advertises: "I am the only dealer in the city who sells but one make of wheels, and wheels that I have tested by many thousand miles of hard riding. In 1898 alone I rode 5,824 miles, and when I say that for road use the wheel is the equal of any ever made I know whereof I speak."

As a postscript to his advertisement Holland draws attention to his repair department in this fashion: "One of the best repair shops in New England—2,700 jobs in 1900."

NOTHING SUCCEEDS LIKE SUCCESS

The marvel of the year in the bicycle business is the

WONDERFUL SUCCESS OF THE AUTO-BI

and this success means the success of the bicycle dealers. The one is the natural following of the other. There are hundreds of dealers who are sharing this success, but there are hundreds more who are missing their best chances for their share of the profits.

Bicycle dealers who are yet without our AUTO-BI are invited to read the following unsolicited letters.

FALL RIVER, MASS., Mar. 9th, 1901.

E. R. Thomas Motor Co., Buffalo, N. Y.

Gentlemen:—I received my two motor bicycles Thursday evening, and yesterday (Friday morning) we set them up with very little trouble.

One of our customers who has been waiting to see them, purchased and paid me the cash for one of them within a very few minutes after a trial ride. He and I then started out for a ride just outside the town, followed by riders on regular bicycles. We of course let on all the power we had, and riding up hills and against the wind we left one of the most powerful road riders in town away behind. When we dismounted and waited for him he came up with perspiration dropping off the end of his nose. I send copy of to-day's Fall River *News* with my adv't. * * *

My store has been full of visitors all day to see the new machine. I have had 2000 envelopes directed to my customers and waiting to send out circulars of the Auto-Bi with my season announcement.

Yours truly,
W. D. WILMOT.

Mr. John C. Smith of Lynn, Mass., in relation to our Auto-Bi writes. "I have given it some very hard tests. A week ago I rode from Lynn Woods Park Reservation and went up some 15 to 18 per cent. grades without the aid of pedals. Also took one 25 per cent. with a little help. I only got off from Auto-Bi twice and that being on account of two snow banks (that had not melted being in a sheltered spot on the lower road) that were over four inches deep. I am rubbing it into your machine you see and so far I have *not been* disappointed only *greatly surprised*, as I expected to stick the machine in some places I went through. I particularly admire the simplicity of your control."

ALBANY, N. Y., April 4th, 1901.

The E. R. Thomas Motor Co., Buffalo, N. Y.

Gentlemen:—The following are the contents of a letter received from Mr. F. K. Robinson, to whom I sold the first Auto-Bi, and which was unsolicited:

ALBANY, N. Y., April 4th, 1901.

Dear Sir:—Everything is O. K., and I have been showing the machine up to good advantage. It works as fine as silk. I have been to Troy, Albion, Lansingburg and all around. In all I have covered over two hundred miles to my entire satisfaction.

Yours,
K. F. ROBINSON.

The third machine arrived O. K. this morning, and I expect to deliver it to party ordering same this afternoon.

Yours truly,
R. H. ROBE.

KEENE, N. H., March 7th, 1901.

E. R. Thomas Motor Co., Buffalo, N. Y.

Gentlemen:—We wrote you a day or two ago inquiring how soon you could ship us another Auto-Bi. Please give this your immediate attention as we think we have this already sold and will soon wish a third one started on the way. The first one has created considerable interest and we think we can sell quite a number here this season if you can give our orders proper attention. If you are behind on your orders at the present time there is no doubt but that you will be much more so later on. We notice by the trade papers that you are making quite a hustle for the trade. We suggest that you call in your traveling men as you will do very well if you take care of the agencies already established.

We are now giving the Auto-Bi our entire advertising space, 4x9 inches which will soon be increased to 8x9 in our daily papers which will no doubt bring you many inquiries from this vicinity. Kindly refer all such inquiries to us.

Kindly advise by return mail when you can make another shipment and oblige,

Yours very truly,
Dic. by H. T. H. THE WILKINS TOY CO.

Mr. C. G. Quigley, Philadelphia, Pa., in a letter under date of April 4th, writes as follows:

"After I have seen and ridden one of your Motor Bicycles I take pleasure in saying that I pronounce it the best in its line on the market at the present time."

NEW YORK, April 6th, 1901.

Messrs. E. R. Thomas Motor Co.

Gentlemen:—We are enthusiastic over the Thomas Motor and want you to know it. The engine is all right. We are much impressed with its power, and the way it runs is certainly most fascinating, and for our own personal use we feel much the same about it as we did when we first began to ride a bicycle. We want to congratulate you on having such a good thing both mechanically and commercially, and we hope that our business relations will always be mutually pleasant and satisfactory. We are very enthusiastic, and when people are enthusiastic they always work hard.

Yours truly,
SIDNEY B. BOWMAN CYCLE CO.

The Susquehanna Cycle and Repair Co., of Williamsport, Pa., under date of April 19th write:—"We have received Auto-Bi O. K. The machine has proved very satisfactory and in the very near future we expect to duplicate our order."

THE JIG; ITS EFFECTS

Of Vast Importance but Dulls the Workman's Sense of Responsibility.

Jigs, which are indispensable appliances in any shops that deal in the manufacture of specialties on successful lines, are schemed by the foremen, managers or machine attendants, sometimes with, other times without, aid from precedent, says a practical man who has given the subject much attention.

Some men become very adept at this work; nothing seems to come amiss to them. Given a definite object to be attained, they soon arrive at the end desired. They seem to possess the instinct for scheming, though actually this is largely the result of experience. Few of these jigs are ever heard of, or seen outside the shops in which they have been devised. They serve their definite and specific ends, and no one troubles more about them. Yet many are of ingenious construction and costly.

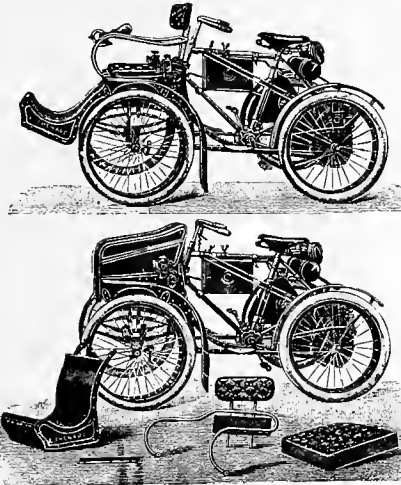
A man who is adept at designing jigs is a valuable acquisition in a modern shop. Some who in other respects are good mechanics cannot scheme. They plod on excellently in old grooves, but fail in the attempt to strike out anything new. Often, too, and somewhat singularly, the men who are constantly operating machine tools prove the least capable of devising any methods for doing a job on the machines with which they are so familiar outside of the regular methods to which they have become accustomed, and the foreman or manager has to supply the necessary ideas. On the other hand, suggestions which sometimes emanate from the workmen are discouraged by the heads of departments. Even principals are not always superior to this weakness.

Jigs are usually schemed with a view either to facilitate and cheapen workshop operations or to insure greater accuracy than would be possible without their use, or to utilize machines or appliances for purposes other than those for which the machines were primarily designed. The economies which are effected thus are often very great in the saving of time, or in the production of better results, or usually by both in combination. There is always the alternative of doing preliminary work or finishing by hand processes, but the object sought to be attained by the jig is either to eliminate these altogether or to reduce them to a minimum.

When a man sets to work to design a jig for a special purpose he has to consider several matters. The design ought so far to fulfil its intended function as to be independent of the chances of human error in handling it, and prove equally efficient in the case of changes of attendants. The appliance should take the place of the craftsman, but with the risk of error eliminated. Clearly an imperfect or inaccurate jig is useless, because it fosters a false sense of security. We know that if a division plate, or if a

dividing wheel of any kind is inaccurate, it is worse than useless, and that if a gauge is not correct, rule or caliper measurements had better be taken.

Similarly, if a drilling templet is untrue it is better to pitch and mark out the holes by hand. If a former is not true, then hand work is preferable. When men become accustomed to work by the aid of extraneous appliances they learn to rely upon them absolutely, and the sense of personal responsibility becomes dulled. If anything goes wrong the blame is thrown upon the gauge, templet or jig.



SEAT OR LUGGAGE CARRIER AT WILL.

Will Indict him for Felony.

Among the States which have recently passed more stringent laws directed against bicycle stealing is California. The last Legislature enacted a law under which it is made a felony to steal a bicycle.

An opportunity to secure a conviction under this law came a short time ago, when Henry Mitchell, an Oakland bricklayer, who was arrested on a charge of stealing a bicycle from the rack in front of a business house, has been charged with grand larceny. It is the intention of the prosecuting attorney to prosecute Mitchell under the new law. It is the opinion of the police that a prosecution under this law will, if a conviction is secured, have a good effect on the bicycle thieves who have been operating there.

Evening Closing at Westfield.

Under an agreement reached last week, a closing schedule has gone into effect at Westfield, Mass. Under it all bicycle stores and repair shops will hereafter be closed every evening in the week, except Monday and Saturday. There has been considerable agitation of the matter between the bicycle dealers and the retail clerks' union, the latter organization having had the matter in hand for adjustment. It was something of a problem how to get around some complications arising from the overlapping of lines, but a general closing arrangement now covers it all.

THE TIRE AND THE RIM

The Securing of one to the Other Always a Matter of Moment.

From time immemorial one of the greatest difficulties encountered with rubber tires has been to fasten them properly. Cements of all kinds have been used, with more or less—frequently less—success.

Pneumatic tires lessened the difficulty somewhat. The constrictive properties of some fabrics and the gripping tendency of the inflated tire operate to keep it on the rim. But even then there is constant danger of creeping unless the fastening to the rim is well looked after. Cements will lose their life, and nothing but renewing them will accomplish much good once this trouble has developed.

It is curious to note that modern methods of tire fastening have their counterpart in the practices of "auld lang syne." Wires of various kinds were resorted to a score of years ago quite as much as they are to-day, and even the plan of vulcanizing them to the rim, now adopted in the case of big tires on very heavy vehicles, is merely a revival of an old process.

As far back as 1881 an English maker put out what he termed "Indestructible" tires. They were "moulded into the rim in a soft or doughy state, and were then subjected to a steam pressure of 30 or 40 pounds to the square inch in the vulcanizer, by which they are compressed and also secured to the metal." They were warranted never to come off, and, being so compressed, hardly ever cut, thus well deserving their name of "indestructible."

Nor was that early period without its metallic tire. A partner of the maker of the "Indestructible," not to be outdone in the way of a specialty in the tire line, put out a patent metallic fixed tire, which was made in four parts to suit the requirements of the "Portable" bicycle with which it was supplied. These parts were neither stretched nor compressed, and were held firm by means of small screws which screwed through the rim into long pieces of metal inserted in the tire for the purpose. Loosening was an impossibility, and by taking out the screws the whole or part could be easily removed if requisite.

Catalogues Wanted.

The Flint, Eddy & American Trading Co., of this city, are about establishing a branch in Durban, Natal, which will look after business in South Africa. J. T. Paterson, who has been connected with the New York office for some years, will be in charge, having under his direction men already in the territory. He is making ready to sail. Meanwhile catalogues are requested for his information and for file in the Durban office. They should be directed to the Flint, Eddy establishment, in this city, and marked "South African Department."

The Week's Patents.

672,438. Combined Hobby Horse and Tricycle. Frank E. Black, Bellemont, Ariz. Filed June 13, 1900. Serial No. 20,159. (No model.)

Claim.—1. In a combined hobby horse package-carrier, consisting of the receptacle and tricycle, the figure of an animal for the rider to sit upon, a hanger adapted to straddle the back of the animal and provided with longitudinal open-ended slots, said slots having serrated faces, combined with a vertically adjustable and removable bearing having serrated faces adapted to engage with the serrations in the hanger, a propelling mechanism connected to the rear driving-wheels, and a clamping-bolt upon which the hanger rests, substantially as described.

672,495. Bicycle Package-Carrier. Charles W. Smith, Cleveland, Ohio. Filed Aug. 24, 1899. Serial No. 728,309. (No model.)

Claim.—1. The herein described bicycle having the two parallel flat sides joined by the curved top portion, curved bottom portion, curved rear portion, forming one continuous curved surface, and the front portion, the circumferential outwardly-projecting flange, the inwardly projecting head or shield adapted to receive a portion of a bicycle-wheel, and means for removably and rigidly securing such receptacle to the rear of a bicycle.

672,610. Back-Peddalling Brake. Charles O. Barnes, Buffalo, N. Y., assignor of two-thirds to Jesse B. Eccleston and Harrison M. Engle, same place. Filed Nov. 1, 1900. Serial No. 35,111. (No model.)

Claim.—1. In a back-peddalling brake, the combination with a wheel-hub having a brake-surface, and an internal clutch-flange, of a sleeve arranged in the end portion of the hub and rotatable independently thereof, a driving-wheel carried by said sleeve, a cam-ring mounted on said sleeve to turn therewith, and provided with a lateral cam which rises in a rearward direction, means interposed between said cam-ring and said clutch-flange which transmits the lateral thrust of the cam-ring to said flange, a laterally movable clutch-ring interposed between said clutch-flange and said cam-ring and provided with a lateral cam which bears against the cam of the cam-ring, a brake shoe, and means for operating the brake shoe from said cam-ring, substantially as set forth.

672,656. Bicycle Saddle. Pardon W. Tillinghast, Cranston, R. I. Filed Dec. 23, 1896. Serial No. 616,725. (No model.)

Claim.—1. A bicycle saddle consisting of a bent frame with separable ends provided with a seat, and means substantially as described for separating the ends of the frame to tighten the seat.

672,698. Bicycle Pedal. Isaac A. Braddock, Haddonfield, N. J. Filed August 13, 1900. Serial No. 26,717. (No model.)

Claim.—1. A pedal, comprising two aligning boxes, an arched frame member engaging at its ends with said boxes, and an L shaped member extended from one of said boxes in the same plane with the arched member.

672,738. Bicycle Frame. Abi Mayerson, Philadelphia, Penn. Filed January 29, 1900. Renewed October 29, 1900. Serial No. 34,802. (No model.)

Claim.—1. The combination in a bicycle, of the head, saddle post and crank hanger, projections thereon, flat solid connecting bars presenting flanges, with couplings securing the said bars to the projections of the head, saddle post and crank hanger, substantially as described.

672,747. Spoke Fastening. Edward T. Wheeler, Akron, Ohio. Filed September 22, 1900. Serial No. 30,778. (No model.)

Claim.—1. In a spoke fastening, the combination of a screw bolt adapted to be fixedly attached to a wheel rim, a nipple screwing longitudinally on and having the longitudinal thread bore receiving said bolt and having a longitudinal bore for the spoke with an enlarged inner end for the spoke head, and a longitudinal slot extending radially into said bore for the lateral insertion and removal of the spoke, and a spoke having an outer end head, substantially as described.

672,875. Sparking Igniter for Explosive Engines. Abraham Bath, New York, N. Y., assignor to Safety Three Wheel Vehicle Co., same place. Filed February 17, 1900. Serial No. 5,623. (No model.)

Claim.—1. In a sparking device for motors, a core, a terminal mounted on the inner end thereof and having a portion thereof extending back over the side of said core, a bolt passing through said core and securing said terminal thereto, a second terminal surround-

ing said core intermediate of the ends thereof, and suitable electrical connections with said terminal.

Protected by Leather Scales.

Another puncture proof tire has been invented, which, it is said, has at least an idea of novelty, and will interest cyclists traveling over bad and dangerous roads. The construction seems very simple, as neither metal, which corrodes the rubber, nor any of the numerous impregnated substances have been used, as such have always proved failures. The firm making the new tire takes little scale-like pieces of untanned parchment-like leather, which are arranged like scales on a fish between two thin layers of cotton ribbon. The protector comes between cover and air tube, and nothing is able to injure the tire.

Cycles fitted with this tire protector have been ridden over nails and pieces of glass, and were afterward used for touring without extracting from the outer cover the numerous pieces which had forced themselves into the rubber. After a two days' trial the tires, which were over three years in use, were taken to pieces, and the inner tubes inflated and refilled with air, when such worked as if nothing had happened.

Drives Front Wheel.

Novelty, if nothing else, may well be claimed for an invention for which a patent has been taken out at Berlin. The invention consists of a driving device for cycles consisting of elastic shafts, transmitting the power from the pedal crank shaft to the front wheel.

The power is transmitted direct or indirect to the front wheel from the pedal crank shaft by means of flexible shafts. The construction is essentially so devised as to bring the flexible shafts into the front part of the frame. The driving device is then brought into action by means of a worm wheel co-ordinated to the pedal crank axle, putting the flexible shafts in motion, which shaft passing through the tubing of the frame drives the axle of the front wheel.

SPECIAL NOTICE.

Worcester, Mass., April 24, 1901.

To Whom it May Concern:—

We have received letters from several of our customers, saying that they had been notified by the Wyoma Coaster Brake Co. that they had entered suit against us for infringement of the "Wyoma" Coaster Brake. We wish to say that this statement is FALSE as we know of no suit that has been entered against us in this matter, and would further advise each and every one of our customers using the "E Z" Coaster Brake, that we will protect them and stand back of our goods.

Respectfully,

REED & CURTIS MACHINE SCREW CO.

Elfin
Bicycles.

"It takes More than One Swallow To make Spring."

—but it doesn't take more than one "swallow" of our pointed bicycle truth to convince a dealer of the vast superiority of the Elfin Bicycle over any other Juvenile.

It was years ago that we realized the importance of having a child's bicycle

Built for
the Child

—with an equipment suitable for the child—with a "Reversible Crank Bracket" and an "Easy Chain Adjustment."

It has been these features that have been mainly responsible for the immense trade in Elfins—when other child's bicycles have had difficulty in holding their own.

If you are not acquainted with Elfin construction send for our catalog—that explains all.

Our nearest Distributing Agent is only a few miles from you. Send for his name.

**Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.**

The Week's Exports.

There was no let up in the activity of the export trade last week. England, France and Germany were, as usual, the large buyers. Australia, Sweden and Italy, however, came up strongly, while Uruguay's purchase was of unduly large proportions. The record for the week, which closed April 23, follows:

Antwerp.—123 cases bicycles, \$2,483; 3 cases bicycle material, \$65.

Azores.—1 case bicycle material, \$15.

Brazil.—2 cases bicycles, \$63.

British East Indies.—19 cases bicycles and parts, \$998.

British Guiana.—10 cases bicycle material, \$521.

Bremen.—1 case bicycles, \$25.

British West Indies.—14 cases bicycles and material, \$392.

British Australia.—101 cases bicycles and material, \$6,396.

British Possessions in Africa.—1 case bicycles and material, \$50.

Cairo.—5 cases bicycles, \$507.

Christiania.—20 cases bicycles, \$620; 10 cases bicycle material, \$460.

Cuba.—1 case bicycles and material, \$25.

Copenhagen.—25 cases bicycle material, \$709.

Danish West Indies.—1 case bicycles, \$40.

Florence.—6 cases bicycles, \$155.

Gothenburg.—1 case bicycles, \$25.

Glasgow.—4 cases bicycles, \$105.

Genoa.—7 cases bicycle material, \$140.

Havre.—150 cases bicycles, \$3,328; 33 cases bicycle material, \$1,250.

Hamburg.—598 cases bicycles, \$4,180.

Hango.—4 cases bicycles, \$112.

Hull.—1 case bicycle material, \$25.

Jacobstadt.—7 cases bicycles and parts, \$300.

London.—271 cases bicycles, \$2,835; 133 cases bicycle material, \$6,653.

Liverpool.—7 cases bicycles, \$328; 14 cases bicycle material, \$1,756.

Lausanne.—14 cases bicycles, \$300.

Mexico.—8 cases bicycles and parts, \$283.

Malmö.—70 cases bicycles, \$2,121.

Milan.—4 cases bicycle material, \$244.

New Zealand.—13 cases bicycles and parts, \$1,369.

Naples.—1 case bicycles, \$25.

Piræus.—10 cases bicycles, \$386.

Rotterdam.—2 cases bicycle material, \$250.

Southampton.—2 cases bicycles, \$60; 18 cases bicycle material, \$1,230.

Stockholm.—134 cases bicycles and material, \$5,373.

St. Petersburg.—4 cases bicycles, \$700.

Trieste.—1 case bicycles, \$20.

Turin.—45 cases bicycles, \$3,168.

U. S. of Colombia.—2 cases bicycle material, \$25.

Uruguay.—62 cases bicycles, \$1,768.

Venezuela.—2 cases bicycle material, \$18.

Wasa.—5 cases bicycles, \$212.

Wiborg.—3 cases bicycles, \$166.

A Special Bicycle for Special Buyers



A made-to-measure machine that sells at the price of the hand-me-downs.

This, with the Orient Milaminit and the Orient Motor Bicycle, make the Orient line more interesting, progressive and exclusive than any dozen other bicycle propositions combined.

WALTHAM MFG. CO.,

Bicycles,
Motocycles,
Automobiles.

WALTHAM,

MASS.

WANTS AND FOR SALE.

15 cents per line of seven words, cash with order.

FOR SALE TO THE TRADE.—List of bicycle dealers in British Columbia; fifty-one names in twenty different towns will be sent on receipt of \$1.00. H. J. Franklin, Vancouver, B. C.

FOR SALE.—Bicycle Repair and Sundry Jobbing Business and Sporting Goods. Best (central) location in a city of over 100,000; fourteen years in present location, and oldest established, pioneer house of the city; constantly increasing trade, and not a year but what books will show a clean, good profit. Also good Motor Cycle business, already started. Bargain for right party. Full information and reason for selling. Address Edward Buffum, 167 Oliver St., Boston, Mass.

Worth of the Window.

Hardware dealers are generally regarded as being pretty well up in front in the ranks of progressive merchants. Time and again they have been held up to cycle dealers as an example that it would be well to follow.

That even Homer nods, however, is shown by the remark attributed to the head of a large Connecticut hardware house.

"We hardware dealers have just begun to realize that we have show windows which are worth as much to us as the show windows of concerns in other businesses are worth to them, and we are beginning to find out how to make the most of our opportunities in this line," he said.

All of which goes to show that there is hope even for the cycle dealer. He may wake up yet and make use of his window opportunities.

Why Chains Wear.

If the pitch of chain could be kept always the same, there would be no cause for complaint of any kind, says a foreign writer.

In general, the trouble that occurs with the use of chains comes from the lengthening pitch. This lengthening is so generally due to wear of the joints that other causes can be neglected. A new chain, not weakened by wear, will stand the maximum strain required without permanent elongation, but rapidly lengthens when run at a comparatively light load.

It would seem that the weak point, the one most affecting a chain's life, is the insufficient bearing surface in the joint, as can be clearly shown by taking in consideration the bearing surface and tension under which the chain runs.

Under favorable conditions, in regard to lubrication, freedom from grit, etc., a journal bearing can be run at a pressure of 500 pounds per square inch of bearing surface, and a chain to run at a tension of 500 pounds should have a pin $\frac{1}{2}$ inch in diameter by 2 inches long. This would make a very heavy chain to do the work, but one that would not have any excess of bearing surface in the joints.

Ordinarily a pin $\frac{1}{2}$ inch long by 3-16 inch diameter, having a bearing surface of 3.32 square inches, is run at a tension at times of 500 pounds, or a pressure on the chain joints equivalent to 5,300 pounds per square inch of bearing surface. Under these circumstances it is no wonder the chain lengthens through wear of the joint.

How Rubber is Grown.

India rubber cultivation in Para, says a correspondent, does not require much capital after the land has been acquired. One hectare (2.471 acres) will carry at least twenty-four full grown rubber trees, besides the smaller ones, which from year to year arrive at the productive state. New trees are constantly maturing, and planting is not necessary, as the trees are indigenous to the soil and reproduce themselves from the seed; but the trees must be kept clear of undergrowth.

The average yield of rubber from each tree is four kilogrammes (8.816 pounds), and a tree can be worked through several seasons. One system of working a plantation is to pay a laborer by the day, week, or month to look after it, and then to take all the produce; another system, and one requiring less capital, is to hire out the trees on the condition that the hirer sells all the rubber obtained to the owner. Merchants will not buy the rubber at its full weight, as it contains much water, and loses weight from the drainage during transport. Before packing, the lumps of rubber are cut in half to see whether any unprincipled gatherers have added stones or sand to increase the weight.

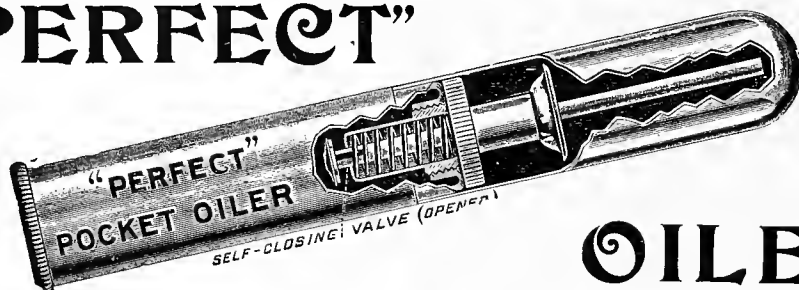
THE OLD RELIABLE

DEMOREST BICYCLES.

AGENTS WANTED.

DEMOREST MFG. CO., WILLIAMSPORT, PA.

"PERFECT"



25c.

OILER.

Used by leading makers of high-grade bicycles. The only oiler that regulates supply of oil. CANNOT LEAK. We make cheaper oilers also, of unequalled quality.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.

The New Departure Coaster Brake.

Send for Catalog and Prices.

YOU'RE IT !!!

WITH A NEW DEPARTURE COASTER ON A WHEEL, LIKE MERCURY, WITH HIS WING UPON HIS HEEL, THE AUTOMOBILE ISN'T IN IT. YOU CAN COAST A MILE A MINUTE. YOU FAIRLY YELL FOR JOY, SO GOOD YOU FEEL.

Speed as Pleasure as Protection.

Selling Agents,
John H. Graham & Co.
New York City, U.S.A.

Sheet Steel Bicycle Parts.

All Kinds of Metal
Stamping

THE CROSBY COMPANY, Buffalo, N. Y.

WOLFF-AMERICAN BICYCLES.

STEARNS BICYCLE AGENCY, - Syracuse, N. Y.

NEW SYSTEM

of Gasolene Engine Ignition, "Autogas" Dry Battery, double porcelain insulated Ignition Plug, Secondary Coil, etc.

WILL SEND

$\frac{1}{3}$ DOZ. of my Automobile Dry Battery anywhere, f. o. b. New York, **FOR \$3.**

Write to-day for circulars, and mention
Bicycling World.

WILLIAM ROCHE,

Inventor and Sole Manufacturer of New Standard Specialties.
42 VESEY STREET, NEW YORK CITY.

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., May 9, 1901.

No. 6

CLOSED THE DEAL

Persons Acquires Hafelfinger Rights and the Royal Motor Bicycle Will Result.

As the Bicycling World of last week stated would probably be the case, contracts have been executed which assure the manufacture and marketing of what has been popularly termed the Hafelfinger motor bicycle.

Henceforth, however, the bicycle will be known as the Royal, with "Made under Hafelfinger patents" forming a conspicuous part of its nameplate and the printed matter which will herald it.

The parties to the transaction are Emil Hafelfinger, the inventor, and Charles A. Persons, who will operate as the Royal Motor Works, with offices at New York and Buffalo.

Persons is best known because of his long identification with the cycle saddle trade and as the head of the Persons Mfg. Co., of Worcester, Mass. He was one of the earliest to become interested in motorcycles, however, and for some two years has owned and operated one of the most powerful motor tricycles in practical road use. This use has not only given him a considerable fund of experience, but served to so increase his faith in the future of motorcycles that his deal with Hafelfinger is the result. Once the contract was signed, he permitted no grass to grow under his feet. Partially completed arrangements for its manufacture were at once closed and work on the necessary patterns commenced. With an eye to the demand of the future, two other factories are also available should occasion arise. The business is expected to be in full operation July 1. Hafelfinger himself will superintend the manufacture of the bicycle, and will hereafter devote himself entirely to its interests.

That the Royal will lend stimulus to the motorcycle trade there is every reason to believe. Its originality and compact and attractive lines cannot well fail to reawaken and to widen the marked attention and comment which the machine evoked when shown for the first time at the New York Cycle Show in January last. Since that time it has been improved and put to extended

tests on the road, and this use has served to increase its reputation. Although departing from existing devices of the sort, its horizontal cooling flanges, its automatic mixer, its sublimely simple muffler and its automatic lubricator have proven themselves valuable features.

It is expected that the Royal will be ready for marketing within ninety days.

Despite Mr. Persons's new connection, the manufacture of Persons saddles will in no way be interrupted or interfered with.

Lamson Sells Luggage Carrier Rights.

The Lamson luggage carrier, which for nearly twenty years has been one of the standards and landmarks of the cycle trade, has finally passed out of the hands of the rare old veteran who gave them their name and fame—Charles H. Lamson, of Portland, Me. He has sold all his rights and patents to the Megquier & Jones Company, also of Portland, who will continue the business; they are brass and iron workers, and are well situated to make and market the goods.

In addition to the standard Lamson patterns, Megquier & Jones will also market a new carrier, the Peterson, which has every appearance of a seller. It is reversible—that is, it may be attached to either the head or the rear forks of the bicycle. It is a most ingenious device, which fits any bicycle, and is quickly and securely attached by two hooks.

Rubber Goods Recognized.

The securities of the Rubber Goods Manufacturing Company were last week admitted and listed by the New York Stock Exchange, and will no more be cried on the "curb." Recognition by the Exchange was followed by a sharp advance, the preferred stock touching 90 and the common 36; on the rebound, however, they fell to 85 and 33, respectively. Despite the cyclone of speculation in Wall Street the American Bicycle Company's securities remain stagnant, the preferred at 32 and the common at 7.

From The Wheel to Wall Street.

F. P. Prial, long the publisher and proprietor of the Wheel and Cycling Trade Review, which was absorbed by the Bicycling World in September last, has plunged into the whirl of Wall Street. He is doing a brokerage business.

UP ON APPEAL

Long Standing Suit Involving Tillinghast Tire Patent Given Another Hearing.

The long fought and hard fought case of the Single Tube Automobile and Bicycle Tire Company against F. H. Porter et al., which involves the validity of the Tillinghast patent, was up on appeal in the United States Circuit Court at Boston last week.

The old ground was again thrashed over, but so far as can be learned nothing substantially new came to the surface.

It will be recalled that in October last Judge Colt rendered a sweeping decision in favor of the Single Tube company; it was from this decision that the Porter interests appealed. F. F. Fish, the new president of the Bell Telephone Company, appeared for the tire company, and E. S. Mansfield for the defendants.

In the course of the hearing it became necessary to produce one of the tires, and Mr. Mansfield, with all the appliances at hand, proceeded to make one. It is so seldom that a lawyer performs manual labor, as one report states, that Mr. Mansfield's success proved such a feature of the hearing that the Boston legal fraternity has not yet ceased talking about it. After both sides submitted their arguments the court took the case under advisement.

Suit Set for Next April.

In the United States Circuit Court, at New Haven, Conn., on Friday, Judge Townsend granted a motion continuing the time set for a hearing on the suit of Brown Brothers, Limited, of London, England, against George J. Capewell et al., of Hartford, Conn., to the April term, 1902. The action is over a contract for machinery purchased by the plaintiffs of the defendants for making bicycle spokes. The machinery was delivered, and the plaintiffs paid \$40,000 of the \$67,000 contract price. The plaintiffs claim the machinery did not perform its mission, and last year sued the defendants for \$75,000, but at the trial in Hartford the jury disagreed, and the case was taken to New Haven.

MOTOCYCLES AS BAGGAGE

Frenchmen Force the Issue and Win—Position of American Bicycles in France.

Paris, April 19.—If the law sometimes falls heavily upon the motocyclist for forgetting that there are regulations forbidding him to travel at the rate of twenty-five miles an hour, he, at all events, has the satisfaction of knowing that this same law looks after him when he is in the right. He has been having a lot of trouble with the railway companies, which are all directly under the control of the State, and are consequently run for the benefit of the public as well as for the stockholders. If a company gives a too free interpretation to its bylaws and tries to put the screw on the public it is promptly set back in its place.

When a man buys a ticket he is entitled to carry any amount of luggage he pleases, the excess being paid for according to a moderate scale. Thus a bicyclist can carry his wheel free by paying two cents for registration, and the motocyclist can be accompanied by his mechanically propelled bicycle or tricycle without extra charge. The companies didn't like the idea of lugging about gasoline tricycles for nothing, but as they couldn't help themselves they had to endure this new torment in silence. When the trailer and quadricycle came on the scene they thought the motocyclist was going a little too far.

One of the first to have trouble with the companies was the well-known motocyclist Cormier, who was returning from down south and boarded a train somewhere on the road between Nice and Lyons. The station master looked dubiously at the quad and said that it was too big to go into the car and advised that it should be sent by freight train. Cormier didn't appreciate the perfidious meaning of this suggestion, and let the machine be sent on after him; he found he was buying his experience at too high a figure, however, when a few days afterward a bill was presented to him for \$50 for the transport of his quadricycle, which is about three times the price of a passenger ticket.

The motocyclists then started to fight the railways. If the quads wouldn't go in the wagons they took off the front detachable seats, and if there wasn't room they insisted on the station master putting on extra cars. He couldn't help himself, for the law was on the side of the motocyclists and he had to obey. Meanwhile the companies conferred, and decided that henceforth no motorcycle weighing more than 300 pounds could be carried on a passenger train. The motocyclists appealed to the Minister of Public Works, who has just sent a strongly worded circular to the companies telling them that they are not entitled to make rules of their own, and that a passenger can be accompa-

nied with any kind of luggage without restriction of weight, provided it can be got into the train. This is a big triumph for the motocyclist, who is not such an enemy to the railroad that he does not find it convenient to use it in moments of difficulty through punctured tires or motor troubles, and the races and competitions held some distance out of Paris give the companies plenty of work in the carrying of motorcycles.

The season has been a terribly backward one for the bicycle trade over here. Not for many years has cycling been interfered with so much by the weather in what is by courtesy called the spring, and agents began to think that the prospect of a good season was a doubtful one. But just now it looks as if spring were trying to make up for its past shortcomings. The fine weather is turning thoughts once more to touring, and from all appearances it looks as if the demand for bicycles is going to be heavier than it has ever been before. Talk about a slump in the bicycle trade! Why, statistics show that the volume of business was never larger than it is at the present moment. Cycling continues to grow in favor among the French, and if, as a general rule, the Frenchman is not accustomed to replace his wheel every year, and will ride it season after season until it gives way under him, there is a big percentage of wheels constantly falling out of service, and the number of people entering the cycling ranks is so large that there must be a considerable demand for new bicycles.

Who is supplying these requirements? The leading makers complain that trade is not what it used to be, and to compensate for the falling off in bicycles they are manufacturing motorcycles, which they say are killing the demand for pedal machines. This is not true. If the leading firms are not doing the bulk of the trade, as they did in times gone by, it is because they are not looking out for it. At the time of the slump two or three years ago they decided to cut down expenses as much as possible, and the first thing they did was to suppress advertising expenses. They withdrew their support from professional racing, and would not pay for publicity in any shape or form. The result of this state of things was that they dropped imperceptibly out of the market. Their places were taken by scores of small makers who bought their bicycle parts and fitted them up and sold good machines at much below the figures asked by the big firms. I think these makers are beginning to find out their mistake, for some of them seem to be coming back again to their old business methods, and the way in which they are returning to the bicycle track shows that there is likely to be a revival in professional cycling. They certainly won't pay such princely fees to the crack professionals as they did in the past, but still the successful cyclist will find it easier to make a living than he has done for the last two or three years.

That the big firms have seen their mistake in neglecting the trade is proved by their anxiety to bring out novelties, especially in the shape of free-wheel and two-speed bicycles. At first the French did not take kindly to these introductions, but judging from the way in which free wheels are selling just now they are bound to become popular in the coming season, and it looks as if the two-speed gear is likely to have a certain vogue among cyclists who go touring in hilly countries. Those who have tried the two-speed gear speak favorably of it, but experience alone can show whether the public will take to this device. If they do it will bring further business to the big firms, who certainly want it, and perhaps we shall see a recovery in the demand for high-grade machines.

If the big French makers have temporarily lost their hold on the trade, and have neglected it for the sake of the automobile, it is all to the advantage of the American manufacturers, who are reaping their reward for patient effort, and, having stuck to this market through very trying times, are beginning to find an improving sale for their bicycles. The prices of American wheels have wisely been lowered to meet the altered conditions of trade, and thus they are occupying a place between the small maker who turns out cheap machines and the French manufacturer of high-grade bicycles who continues to ask big prices. The buyer who requires a high-class, reliable wheel will not go to the small maker, and he is not inclined to pay a big figure for a French high-grade machine when he finds that an American bicycle is a better bargain, because it is equally as good, if not superior, and a good deal cheaper in every way. Besides, the American bicycle has a sound reputation in this country, and if makers continue to push their sales on this side they will be able to do some very profitable business in the coming season.

Recent Incorporations.

Yonkers, N. Y.—Pinover Metallic Wheel Co., with \$25,000 capital. Directors: Lester Cohn and R. H. Wolff, of New York, and Jeanette Pinover, of Brooklyn.

Buffalo, N. Y.—Pan-American Bicycle Livery Co., with \$1,000 capital. Directors: V. E. Ripper, William Breckenridge and Charles Kuhn, all of Buffalo.

Chicago, Ill.—Lattimer Tire and Rubber Mfg. Co., with \$25,000 capital. Incorporators: Edward J. Newberger, L. M. Ritterband and M. D. Evers.

Mitchell Motor Bicycles are Moving.

"Our business in motor bicycles is progressing favorably," writes S. F. Heath, of the Wisconsin Wheel Works. "Each day brings orders, and it looks very much as though we should have no trouble in selling all we could produce."

BENEFITS OBTAINED

Testimony of a Member as to Monetary Results of Trade Organization.

It is sometimes amusing as well as instructive to get the views of the different members of a repair association shortly after the latter has been organized.

The beneficial results of the workings of the association are at once recognized. Along with the surprise expressed at the ease with which the change in prices is enforced is found a feeling of wonder and even disgust that the new schedule was not put into effect long ago. A mental calculation is made of the saving that would have been made each season had this been done, and words are not spared to express the regret felt at the delay.

"Why, I have been throwing away hundreds of dollars each season," said one repairer in a conversation with the *Bicycling World* man. "The worst of it is that it was entirely unnecessary, as a halt could have been called last year or the year before just as well as now. A plague on the distrust of each other that kept us apart for so long!"

"There is not a particle of doubt about the repair association being a good thing, provided all the members stick to the new price schedule as I am doing," he continued. "It is no more trouble to get the new prices than the old ones. Besides, there is no dickering and bickering between the customer and myself, as there was under the old plan. I simply quote the agreed figures for a specified job, and if there is any indication of a doubt in the rider's mind I point to the price card on the wall and let him see for himself."

"That never fails to convince him and to clinch the matter. I can't recall a single job I have failed to land since the schedule went into effect."

"There is nothing strange in this, however. The man comes to me for some very good reason. Either he is a regular customer or he is pleased with the reports of my work or punctuality or something of the kind, and he naturally gives me the job as long as there is no question about the price being right."

"It helps to make things easy with the other repairers, too. I no longer have the feeling that I am losing work because some of my competitors have underbid me; nor do I have to cut out of self-defence, believing that to do so is the only way to hold my trade."

"Occasionally a man will leave me after obtaining my figure, taking his machine with him. But in every case he has returned. I suppose he goes to one or two other repairers and gets the same quotations. Then he is convinced that everything is on the level, and is ready to give his trade to his regular shop—the one he came to first, of course."

"Every time this sort of thing happens it makes me feel better. It shows me that the

other fellows are living up to their agreement, and that I can hold my customers while still getting prices that will yield some profit. I can see some chance of coming out a little ahead this season, which is something I have not done for a number of years."

"But what I kick myself for is that I did not go into something of this kind before. It would have been almost as easy a year or two ago as it has been this year. But there's no use crying over spilled milk, I suppose, and there's nothing to do but to make the best of things now."

Kirk is Surprised.

Pessimism is accorded scant consideration by General Manager Kirk of the Kirk & Snell factories. He is quoted by a Toledo paper as saying that the conditions existing with bicycle manufacturers are simply unaccountable.

We had feared the "out of date" cry, and really wondered whether all our calculations as to the popularity of the bicycle were out of line, for you know there were a whole lot of people who said the "bicycle craze was on the wane," and to be candid with you there were a lot of bicycle makers who feared the cry.

The conditions surrounding the 1901 trade, however, are such as to throw extreme discredit on this pessimistic cry, since there never was a year in the bicycle business when so many "good people" were buying bicycles as this season.

There really has been a wonderful change in the class of wheels demanded by the trade, and bicycling among society people seems to be on the increase the country over. This being the case, the demand for high class goods is phenomenal, while the cheap wheels are having only a fair trade.

Maumee Suit Settled at Last.

At Toledo, O., last week, the First National Bank of that place recovered a judgment against F. J. Cheney in the celebrated Maumee Cycle Co. case. A judgment of \$2,333.33 was returned against him by the jury.

The action was on the fifth trial before Judge Morris. The case grew out of a note which Colonel Cheney, together with his brother directors in the company—Yost, Huber, Tillinghast and Jacquet—signed at surety. The others were released from the note, because Colonel Cheney had stated on the paper that he would be liable but for \$2,000.

Shape of Bell at Stake.

Testimony was taken in Hartford, Conn., last week in the suit of the Bevin Brothers Manufacturing Company, of East Hampton, against the Starr Brothers Bell Company, of the same place.

The shape of a bell designed for use on bicycles and automobiles is the issue involved. The plaintiffs allege infringement of their patent, but the defendants claim that the shape is old, and has been in use for a long period in door knobs and similar devices.

TICKLING CHICAGO

British Consul There Sends Home a Mixture of Sense and Nonsense.

Taking a leaf out of the book of one of its most formidable competitors—to wit, the United States—the British Government is calling on its consular representatives in this country for information which will be of benefit to British manufacturers.

Chicago cycle manufacturers have received attention from Consul Wyndham. Surprising and far from pleasant to British ears are his remarks regarding the quality of the Chicago product.

The product at most factories is continually improving, and will soon be able to compete in quality as well as price, he says.

Specialization is the strong point of the manufacturer, and an important point is that in cycles, as in all other goods, outside appearances are being disregarded for the inside and unseen. That is to say, while working parts are brought to the highest pitch of perfection, no expense is incurred on outward finish, and the cost of production is thus cut without interfering with working reliability.

The Chicago merchant, continues the report, leaves nothing undone that can benefit his trade, and sends or goes himself to any country where he thinks there is an opening, and advertises largely. One of the great faults found is the slow delivery of British goods.

In Chicago, if a factory is busy and cannot, with the ordinary hands, fill orders that are offered, the staff and works are increased, and all concerned are satisfied, even if it entails closing the works entirely for two or three months in the year. It prevents rival businesses being started, either here or in some other part of the States, which may in future cause the workmen here to be idle for a large part of the year.

German Trade Gains Ground.

Although the Germans continue to growl and scowl, their cycle exports are holding their own better than those of any other nation. For the two months ending with February they exported 247 tons of cycle stuff, as against 244 tons for the corresponding period of the previous year. Their cycle imports have also decreased in what should be to them a satisfactory ratio, having fallen from 56 tons to 36 tons.

Transfer Finally Recorded.

Deeds formally transferring the Pope Tube Company to the Shelby Steel Tube Company of New Jersey were filed in Hartford, Conn., on Monday last. The property conveyed consists of about four acres, 117 rods, with all the buildings, machinery, etc. Stamps to the value of \$189.50 are appended to the deed, which is dated March 2, 1901.

\$25.00 REWARD

For information about Dealers **TIRE FLUIDS.**
using or handling infringing

WRITE FOR CONDITIONS.

NEVERLEAK IS THE ONLY FLUID THAT CAN BE LEGALLY USED IN PNEUMATIC TIRES.

The average business man believes in decency and fair play in trade and usually respects the rights of others: Unfortunately there are exceptions and we are looking for those exceptions: Our inspectors are out getting evidence against infringers but as they cannot cover the ground thoroughly for some time, we make the above offer, particulars of which will be mailed on application. The following constitutes an infringement:

Any person or concern selling or using any liquid, not authorized or made by us, in any pneumatic tire, infringes



our patent rights, and is liable to serious trouble and expensive litigation.

This applies to any private individual, repair man, or dealer, whether he injects a liquid into his own tires, into the tires of others, or makes or sells such liquid for others to use or sell. It applies to any free flowing liquid, semi-liquid or substance capable of being converted into a liquid, no matter what such substance or liquid is made of.

**BUFFALO SPECIALTY MFG. CO.,
BUFFALO, N. Y.**



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Fisk Tires

are always found in the front ranks.

Their enviable record for satisfactory service has won them that position.

You will save yourself an endless amount of time and worry by using the Fisk Tires and avoid the necessity of a change.

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, MAY 9, 1901.

Qualities That Count.

It has been said more than once that a man's business is what he makes it.

Energy, intelligence and enterprise count for much, and sooner or later they are bound to tell. When pitted against sloth, ineptitude and misnamed conservatism there can never be any doubt of the ultimate result.

The bicycle trade to-day affords a good illustration of these truisms.

There are hundreds of dealers who are making their last battle for life—a battle that is hopeless, almost confessedly so. Success is scarcely even hoped for now. Certainly it is not expected, and cannot be, from the very nature of things.

There is absolutely nothing on which to base such an expectation. The same shortcomings which account—in a great measure, at least—for failure in the past are still markedly in evidence.

Little or no effort is made to overcome them. The opportunities which their competitors are quick to seize are passed by

with indifference. Instead the delinquents sit, Micawber-like, waiting for something to turn up, knowing well that nothing of the kind will happen.

Such dealers are, of course, destined to pass away within no great space of time. Sentiment and pity may plead for them, but cannot affect the result.

With them out of the way the lot of the live dealers will be an easier one. Relieved from a competition that does only harm, they will be able to turn their attention to more profitable matters.

The English of it.

On "the other side"—that is to say, in England—they are having a pretty squabble about American competition. Two of the cycle papers are at loggerheads over the matter, and from this distant point of view the effect is a mingling of amusement and pity.

One of the papers pointed out how the Americans were getting the better of Britons in the race for the trade of the world. Some facts and figures were given, coupled with the suggestions that Englishmen should put aside their pride and self-complacency and study and imitate the methods of the Yankee. The other paper declared such speech to be shameful—the bloomier, big-mouthed Yanks had never turned out anything, or hardly anything, half so good as is produced in England, and the Yankee bicycle is, of course, preferred to the English article solely because the rest of the world is populated by fools. No. 1 rejoined with more and fuller facts and figures. It begs the trade not to close its eyes to them, and rightly says that while the utterances of its critic may curry favor with English manufacturers it lulls them "into a sense of false security that is fatal to trade and enterprise." Such wholesale talk as this seems almost treasonable. It certainly isn't "the English, you know" to which we Americans are accustomed. The genuine English comes out in the response of paper No. 2. American competition is not formidable at all, it asserts; if it were "it will never be met by fear and funk or by lauding the goods of a rival and decrying your own." "Let faint hearts stand aside," dramatically exclaims this "the real thing" in Englishmen. "We have plenty of the other sort to carry us to where we have always been—at the top." One can almost hear the loud cries of "Hear! Hear!" amid the strains of "God Save the King" which this patriotic outburst deserves.

It is a typical instance, and one that serves to show why for the nine months ending with March of this year the United States is able to show exports to the value of \$1,120,480,673, which is \$521,000,000 in excess of its imports, while the United Kingdom for the same period shows more imports than exports, which are themselves some 60 millions less than ours.

The leopard may change his spots, but the average Englishman never!

No Conflicition Here.

There were people who thought that the invention of the telephone sounded the death knell of the telegraph. But subsequent events have made it clear that the two do not conflict in any way.

Similarly, there are those who fear that the motor—as applied to bicycles and other vehicles—will ultimately quite drive out the pedal-propelled bicycle.

The analogy is likely to hold good here, too. For the fields of the two types of vehicle are quite separate and distinct, and the success or failure of the one need not interfere with or affect the other in the slightest way.

Indeed, there are not wanting those who take more advanced ground.

Instead of hurting the bicycle, as predicted, they hold that the motor vehicles will help it. As the latter increase in numbers attention will be directed to the bicycle, and riders who have forsaken it will return to their old allegiance.

This is the view entertained by a prominent Philadelphia dealer. In his opinion the mere sight of a motor vehicle is likely to stir a spectator to emulation, and if there is nothing but a lean purse available to gratify it a bicycle offers the best solution of the problem.

Proceeding along this line the dealer referred to bids the motor vehicles godspeed. This is done with the better grace in view of the fact that the latter are also sold by him.

It is probable that in years to come the fears entertained of the conflicition of the two classes of vehicles will have been entirely dissipated.

Who Reaps the Reward.

The season, young as it is, bears ample testimony to the discrimination of the present-day buyer.

For it is the better grade of cycles that he is plumping for. Chainless gears, coaster-

brakes, cushion frames—all are having a good sale, and their extra cost fails utterly to act as a deterrent.

The same tale is told of the regular chain models. In these it is the better grades which have the call. From \$25 or \$30 up to \$50 the scale runs, and even within these limits it is the latter figure which is the most popular.

Not the least gratifying part of the matter is the fact that it is the deserving dealers who are faring best.

Such of them as have advocated cheap machines, or at least have made little effort to stem the tide setting in this direction, are doing their principal business in this class of goods.

But their competitors who have been pounding steadily for the best bicycles, and putting prominently before their customers the late and important improvements embodied in them, have been the ones to reap the reward.

By dint of constant harping on the subject they have managed to carry conviction to buyers. They have been aided, of course, by the reaction against the cheap stuff which flooded the market a few years ago.

But had they not done their share toward bringing about a more wholesome situation the improvement would have been much slower in coming about. The new fittings, which have done so much to add to the enjoyment of cycling, would have met with a very different reception and come into a much less extended use. Lack of novelty would also have meant lack of buyers.

By a continuance of the policy even better results will be obtained in the future.

To Awaken Workman and Rider.

As a means of awakening thought in the men who make, who ride and who repair bicycles, the motorcycle is not to be gainsaid. It is one of its influences of which little if anything has been said, but that it is likely to prove of valuable and far-reaching effect seems certain.

Of late years workmen, repairmen and riders have, generally speaking, accepted the bicycle as a thing to be treated by rule of thumb. They put it together, tinkered with it or rode it without thought. The making of it, riding of it and the caring for it make no great draft on their brain tissue. It excites no curiosity, inspires little ingenuity, provokes no desire for increased knowledge or information.

With the motor-driven bicycle this order of things cannot prevail. To obtain results it requires intelligent workmanship and

thoughtful operation. The man who makes it and the man who rides it must have full knowledge of the causes and actions that "make the wheels go 'round.'" The motorcycle cannot be "slapped together"; it cannot be propelled merely by a push of the pedals. It calls for a higher order of intellect. The average man possesses it, but it has remained dormant. It is in awakening it that the motor-propelled vehicle, of whatever sort, will play a useful part, and one that will lead to better things.

Its influence should be felt in the factory. It will do much to increase the class of thinking workmen, for to put together a motor bicycle or other motor vehicle so that it will run requires thought—it requires more than the manual labor of human automata, so to speak. The motor bicycle will lift many workmen out of the rut and above their fellows, and bring to them the increased monetary returns that come of such labor as that which rises superior to that which brings only sweat to the brow.

Effects of Organization.

It is always the first plunge that is hardest. After it is taken the plunger wonders why he did not take it sooner or why it ever seemed difficult.

This is plainly shown by the experience of the repair associations, which have become so plentiful of late. The evils and abuses with which individuals so long grappled helplessly have, in many cases, vanished into thin air since they have been in force.

The effect has not been solely in the direction of a reform in the matter of prices, however. The character of the work done now tells its own tale to a greater extent than it ever did before. Friction between customer and repairer, and between competing repairers, is much lessened, sometimes eliminated entirely.

When a rider is confronted with a question of price he is not always able to discriminate between good work and mediocre or bad.

It is all very well for the repairer who asks the higher price for a job to say that he does only good work, while the competitor who is able to beat him on price falls down lamentably on quality. That is the first repairer's own view, and his rival will tell an entirely different tale. Very often his words have the desired effect, and he carries the day.

The disappointed repairer naturally feels sore both at his lost customer and his successful competitor. It is not improbable that the next time he is asked to quote on

a job he will bid low enough to get it. Whether he will choose to lose money on it or do slop work is for him to decide.

But with all repairers placed on the same basis, with uniform prices for each particular piece of work, entirely different factors enter into the case.

It then becomes a matter of reputation, of facilities, of location or of popularity. To hold his trade a repairer must have an advantage in some one of these respects. Riders will single him out on account of one or more of these things.

One may excel in brazing jobs, another in machine work, while a third may be known far and near as a superior worker on tires. To each one more than his pro rata share of the class of work he is best fitted to do will gravitate.

It will not take the average repairer long to see that it is to his interest to make his advantage, whatever it may be, greater. He is thus encouraged to continually do better and quicker work, instead of resting on his oars and taking things easy.

It is such things as these that explain why repairers, associations grow and prosper.

Drop Frames in Demand.

There have been from time to time during the last few months indications that the present season would witness an increased demand for drop-frame machines.

Already these signs are being borne out by the result.

Dealers interrogated on the subject assert that such sales are being made in surprising and gratifying numbers. In some cases the proportion is quite as large as of diamond frames.

They look upon this, not unnaturally, as a good sign. If women take up the pastime again, and especially the class of women who are now appearing in the role of purchasers, the effect cannot but be a remarkably good one.

It is possible that the succeeding months may not be up to the mark of those already on record. But such a result will cause surprise on the part of most dealers, and if they cannot forecast the future the task is certainly a hopeless one.

If the demand for drop frames is maintained there will be no little trepidation on the part of concerns which have made little preparation for it.

Nevertheless, the wishes of the great bulk of the retailers—that drop frames continue to move rapidly—will be generally re-echoed.

NUTS AND BOLTS

Some of the Obstacles That Have Blocked Reform in Those Little Necessities.

Proposals with reference to the standardization of cycle bolt and nut thread sizes are by no means new—they have been made at varying intervals ever since the introduction of the safety bicycle—but so far little progress has been made with regard to this much to be desired end, says a man who knows his book.

Each maker appears to have fixed upon sizes for every part and fitting without regard to what any other manufacturer has done, with the result that the unfortunate owner of a bicycle who may have lost or broken some part of his machine, no matter how insignificant, cannot get perfect repairs unless he secures a duplicate part from the factory of the original maker.

A generation ago a similar state of things existed in many other industries, notably those of agricultural machinery, etc., when, if the simplest bolt broke, or even a nut was lost, there was only one or two things to be done—go to a blacksmith and get him to make a more or less imperfect substitute, or send to the maker of the machine for a duplicate. The absurdity of this position finally brought about conventions of manufacturers, who agreed upon standard sizes for many things, including threads for nuts and bolts.

It is not unreasonable, therefore, to suggest that what has proved to be a step forward in other industries would be equally advantageous in the cycle trade. Looking over many bicycles in the market, a cyclist will find perhaps half a dozen sizes of nuts and threads, each requiring a change of wrench to fit them, when one-half of the number would have been just as serviceable.

Comparing different makes of machines, too, one finds upon each some parts which are, to all intents and purposes, identical, except that, because of a lack of standard, a nut taken from an old machine will not fit the same part of another, nor would the part taken from one machine fit in place of the part taken from another.

We are sometimes inclined to fear that manufacturers do not give the matter the attention it deserves. Perhaps it is that they themselves do not suffer from the present irregular methods, and so, it might be asked, Why should they put themselves out and incur expense in making changes to further a movement that would not directly benefit them?

It can be shown, however, that in this matter at least that which benefits the riders also benefits the manufacturers. We believe that if only this standardization could be brought about a good many of the factory processes could be simplified and cheapened, not to speak of relieving them of the trouble inherent to the present system.

The great difficulty in the way of a reform

has been the disinclination of each maker to subordinate his own ideas to those of his rivals. To admit that it would be a good thing to have standard nuts and bolts, etc., is easy, but to determine which shall be the standard is quite another matter.

Persons's Latest Product.

Quick to appreciate the growing demand for a saddle designed especially for use on bicycles fitted with coaster brakes and on motorcycles, on which the rider's weight is also carried in the saddle, the Persons Manufacturing Company, of Worcester, Mass., have brought out the saddle shown by the accompanying illustration.

The illustration largely explains itself. The short pommel and the broad seat are



themselves suggestive of increased comfort, while the marvellous spring must be seen to be appreciated. It is quite unlike anything else, but seems to perform its mission of providing not too much spring, but just enough. Of the workmanship it is enough to say that it is a Persons product; there is none of higher grade.

The Persons people rightly claim that with the saddle almost any wide awake agent can make dozens of sales to riders of coaster brake bicycles and not a few to users of motorcycles. The fact seems self-evident.

Machinery Sold for Junk.

That bicycle machinery comes pretty close to being a drug on the market at the present time is shown by an incident related by a Boston paper.

The local handlers of scrap iron had a chance to increase their stock this week, it says. A representative of the American Spoke and Nipple Company, of Torrington, Conn., has been in Chicopee Falls for several days disposing of the spoke making machinery which has been used in the Lamb factory for some years. The machinery was valued all the way from \$25,000 to \$50,000. It was not considered valuable enough to remove it to any other factory, and to avoid the possibility that it might come into the hands of an independent concern it was reduced to junk at a considerable sacrifice. This is the sixth factory that the same representative has stripped of its machinery in the same way since last September.

The Pasadena, Cal., dealers and repairers have signed an agreement to close their places of business at 6 p. m. each day, except Saturday. The agreement went into effect on May 1.

CRANKS AND GEARS

If Actions Speak Louder Than Words, Here's Loud Talk for Long Cranks.

At a recent session of the Cycle Engineers' Institute, in Birmingham, England, Lieutenant-Colonel Crompton, who was in command of a corps of cycle mounted electrical engineers in South Africa, gave some telling testimony in favor of long cranks and high gears.

Of the twenty-two bicycles employed, ten, he said, were originally designed for 8-inch cranks, ten for 9-inch cranks and two for 9½-inch cranks. The last two had free wheels. The cranks were all interchangeable. He said he might be considered a faddist in regard to crank lengths, but he did not force upon his men anything longer than 8-inch. He did not know whether it was the influence of their commanding officer, or whether it was because they liked 9-inch cranks better than the shorter ones, but every spare 9-inch crank was used up, and all the 8-inch crank bicycles became 9-inch except one, which was ridden by a man with very short legs.

The 9-inch cranks went with 80 gears, and the 9½-inch cranks with 84 gears—lower ratios than he would advocate for ordinary use. As the bicycles were used on the hard but uneven veldt and on roads inches deep in sand, the evidence is worth something.

Will Refund Stamp Money.

The United States Supreme Court having declared the tax of 10 cents on export bills of lading unconstitutional, the government will now consider claims for the refunding of the amount paid for stamps used on such bills of lading, provided they are presented within two years after the purchase of the stamps from the government and are for stamps used to the face value of \$2 or more. All stamps on account of which a refund is asked must accompany the claim, or satisfactory evidence must be furnished showing why they cannot be returned. Evidence must also be furnished showing who paid for the stamps, whether the full face value was paid, and whether the purchasers were reimbursed by any person or persons.

Smith Wants Lamp Plant Sold.

Edward Smith, partner of defaulter Frank M. Brown, in the bicycle lamp business, filed a motion last week in the Campbell Court at Newport, Ky., for an order of sale of the plant. He alleges that the plant in the hands of a receiver is losing money, and, as the claims of the German National Bank has been settled, he asks that the plant be sold. The bank attached all interest in the plant alleged to have belonged to Brown, but the proof in the case went to show that Brown legally had no interest in it.

A NEW MODEL.

. . . The . . .

20th Century Racer

has been added to the

Wolff-American, Regal and Holland

lines of Bicycles.

In addition to the regular racer models with 1 1/8 in. tubing, the 20th Century model comes as a crowning glory to these superb lines.

Specifications in brief:—Frame 20 in., wheel base 41 in., tread 4 3/16 in., tires Palmer, chain 1/8 in. nickel steel, sprockets 21 or 23 front, 7 or 8 tooth rear; finish, Wolff-American, black or **translucent ruby over nickel**; Regal, orange, with carmine head and seat mast; Holland, white, with carmine head and seat mast. Weight, with racing equipment, 19 1/4 lbs.

LIST PRICE \$50.

Our 20th Century Racers are the greatest business-getters of the year. We will tell you more about them on request.

STEARNS BICYCLE AGENCY, Distributors of Bicycles,

SYRACUSE, N. Y.

LEGAL HAIR SPLITTING

English Court Decides When a Motorcycle is a Locomotive and When it Is'nt.

London, April 24.—Although it must be confessed that the number of motorcycles to be seen on the roads in this country is so far disappointing, yet many riders of these machines are met with, more particularly at motor meets and on one or another of the motor clubs' fixtures. Thus at the last week-end run of the Automobile Club there were several motorcyclists, including the veteran F. T. Bidlake, who rode a Singer motor bicycle. This machine is not apparently a very fast mount, but it is speedy enough for ordinary purposes and wonderfully simple to manage. There can be no doubt that it is by far the most popular motor bicycle now offered to the public in this country, although this is not saying much, as the motor bicycle has not as yet "caught on" with the public.

A good many motor tricycles are used in London by people who have to get about rapidly on business, and therefore the frequent cases in which the police have prosecuted owners of cars who left their vehicles unattended have been watched with some alarm by the city riders of motorcycles, because their machines undoubtedly come under the Light Locomotives act as much as a car. Therefore the decision of the magistrates last week that so long as the motor is at rest, and the plug connecting the current is removed, the vehicle is not a light locomotive, and that it can be left for a reasonable time unattended, has been received with no little satisfaction. At the same time I do not think that the London motorists, whether they be cyclists or drivers of cars, are at all out of the wood, because when the police get their knife into any particular thing they invariably have the best of it for a time. They will cease prosecuting the owners of unattended cars or motorcycles under the Light Locomotives act, but will take proceedings for obstruction, basing the said proceedings on the fact that a motorcycle or a car frequently causes a crowd to collect, and that this is an obstruction for which the owner of the vehicle is responsible. This argument has been used ere this, and with a certain amount of success.

The failure of some of the motor tricycles now sold to mount fairly steep hills, even when the riders are not particularly heavy, is causing the demand to increase for those machines which are fitted with $2\frac{3}{4}$ -horse-power motors. This is all very well when water-cooled motors are used, but with the air-cooled engines trouble is almost certain to arise, especially when the hot weather comes. The demand for more powerful motors is also increased by the desire to possess machines capable of drawing trailers when required. As, however, the principal

cause of dissatisfaction is failure at steep hills, it seems odd that the more modern motorcycles are not provided with efficient two-speed gears, which would undoubtedly increase their popularity and need not greatly add to the initial cost. With the free motors now introduced, the application of some handy form of two-speed gearing is not a matter of much difficulty, and would, no doubt, be popular. Owing to the low gearing of the average motor tricycle, it is always hard work to help the engine uphill, on account of the rapidity of pedalling necessary if the effective speed of the machine—that is to say, the rate at which the motor can do most work—is to be properly maintained.

According to information gleaned during a recent trip to Coventry, it would seem that the trade in motorcycles is not as yet developing to any great extent. In fact, with a



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

slight revival in the business done in ordinary cycles, the manufacturers are in many cases giving up the making of motorcycles and light cars, which they were rather inclined to look upon as a means of financial salvation. It must also be remembered that a good many firms were overhasty in rushing into the new business without much experience with motors, and as a result not a few of them have lost money. In consequence many of these makers are inclined to give up the motor business as unproductive of good results. It is fairly evident that this is a shortsighted policy, because in years to come the motor industry will be far larger and more important to the community generally than that of cycle making, remunerative and profitable as the latter will undoubtedly continue to be. We certainly cannot afford to allow a new trade to entirely pass into Continental hands, simply because those who should be able to deal with it are disinclined to do so, or are disheartened because their first attempts have not always proved financially successful.

FILING THE INVOICES

Here's a System That Keeps Account of Purchases in Convenient Form.

The oldtime method of pasting invoices in a scrapbook and journalizing before posting to the ledger, while accurate, is a very laborious method of keeping account of one's purchases, declares one who has departed from the method. Some bookkeepers avoid the journal work by posting direct to the ledger from the scrapbook, which is one step in the right direction, but, presuming that twenty pages are used in a month in this scrapbook, and it is customary to paste in these bills as they are O. K'd and passed for credit, the bills of each creditor are scattered over the twenty pages, and it is, of course, necessary to post each bill separately to the ledger account.

This very serious objection is done away with in the perpetual invoice filing system, which, in brief, is a loose-leaf scrapbook. Two stout covers are held together by means of sectional posts, making a binder which has a variable capacity. In this binder are index sheets, one or more for each letter of the alphabet. Manila leaves with ruled columns are inserted as required, giving a leaf to each creditor. On these leaves are pasted all of the invoices of that particular creditor in the order in which they may be passed, one invoice overlapping the other, and extending the amount in the column provided for that purpose. At the end of each month run through this book and total up the invoices for that month for each creditor and carry that total to each account on the purchase ledger. A recapitulation of these totals under as many headings as may be found necessary to segregate the purchases will give the amounts to post to these representative accounts, such as merchandise, expense, machinery, fixtures, etc. By this method an invoice filing book will always be of uniform thickness, for as leaves become filled they are removed from this current binder and filed in a transfer binder, continuing to preserve the alphabetical arrangement. It also affords the very important advantage of enabling one to find all of each creditor's invoices in one place in one book without the necessity of turning up the ledger to ascertain the scrapbook folios. Such a system could be employed with advantage in connection with the voucher system, where no ledger accounts are kept with creditors.

The voucher system is so well known and widely used that there is small need to refer to it further than to say that if you combine the voucher and invoice, and lock these vouchers after they are receipted in a binder in the same order in which the entries appear in the cashbook, you will have a record of disbursements that cannot be improved upon for verification purposes.

Damage for Dropping in the Slot.

Samuel Brown, on Sunday, April 19, three years ago, while riding a bicycle down Broadway on a slot in the western track of the Metropolitan Street Railway Company, just before reaching Canal street came to a place where the slot was considerably wider than in other places, so that the forward wheel of the bicycle went through, down to the hub, Brown was thrown over the handle bar and seriously injured.

While the usual width of the slot was a little over five-eighths of an inch, at that point it was, as originally constructed, over one and one-half to two inches. It continued for that width only a very short distance.

In a suit against the company Brown was awarded a judgment on a verdict in his favor for damages against the company for maintaining a nuisance. The Appellate Division last week affirmed the judgment in an opinion by Justice Rumsey. The court held that the jury might have found that the slot was unnecessarily wide, and, therefore, that the authority granted to the railroad company to make this excavation in the highway was not pursued with proper care, and that, consequently, as the authority was not properly used, the defendant had created a nuisance.

What Makes the Difference.

Circumstances govern cases as well as alter them, and upon the former depends much. For example, it will appear to many persons to be a very reprehensible piece of work to solder up a dent in a piece of tubing, as is frequently done even in the best-regulated factories.

But the practice is frequently excusable. A frame may get a fall or a knock after it is nearly completed, and if the tube is not weakened or damaged in any way there is no harm in filling it with a bit of solder. At least, this is the view generally taken of it.

But a careless sweep of a file, say, near a joint, may render a tube little short of a death trap. In such case to cover up the place with solder and send the work out as sound is little short of criminal. It is sometimes done, however, and the conscience of the workman or inspector never troubles him.

Quakers Like Coaster Brakes.

Coaster brakes have plainly caught the fancy of Philadelphia riders. Machines fitted with them are seen everywhere, and riders take advantage of the slightest down grade to coast.

Many of the machines are old ones which have been changed over. Nearly all the different makes are represented. Talks with some of the riders make it plain that the device is liked, while repair men state that a considerable amount of work is still being done in the way of fitting coaster brakes to old machines.

One of the results of this is the eagerness displayed to get work of this character. Not only the bicycle stores and repair shops, but hardware dealers as well, are making a strong push on coaster brakes. In a number of the latter wheels were shown in the window with a placard stating that the work will be done for such close prices as \$5.50 and \$5.75. This applies to practically any make of coaster brake.

For this price the rider is supplied with a rear wheel complete, except the tire. It is, of course, cheaper to set up a wheel with new spokes and nipples and rims than to attempt to make use of the old ones, and the rider can, if he so desires, retain the old wheel and put it in place of the new one in case he does not like the coaster brake.

In some cases the work on these built-up wheels is of the sloppy description. In others it is better, although scarcely ever quite up to the standard of first class work.

Bicycle Linked With Pedestrian.

In a case which came before it recently an Alabama court assumed a close affinity between a bicycle and a pedestrian. It was held that where the plaintiff testified that defendant's flagman signalled for her to cross the railroad tracks on which she was injured, an instruction that a bicyclist must under all "ordinary circumstances" be treated as subject to the same rules as a pedestrian, and that he must stop, look and listen, was erroneous, as the term "ordinary circumstances" might have been understood to include the giving of signals to cross tracks, which, in the absence of apparent danger, might absolve both pedestrian and bicyclist from looking and listening.

Has Been Tried and Approved.

When the forward turned saddle post came into fashion some half dozen years ago it was generally supposed that it would have but an ephemeral vogue. Transitions from the back to the forward position, and vice versa, had been so sudden, and were so plainly born of a desire for change, that this view was entirely reasonable.

It has been proved to be an entirely erroneous one, however. It is generally recognized now that the forward turned post won out, because it was right and deserved to succeed. Its predecessor, the backward turned post, had its origin in a fad for an extremely backward position affected by certain racing men of the time. Even on the track the best results could not be obtained from it, while on the road, with its up as well as down hill work, it was an utter failure.

The subsequent attempt to carry the forward movement still further, by extending the post to an absurd degree, failed. It received its support from racing men also, and it was short lived, never being generally adopted. The position over the pedals obtained by its use suited very few riders, and they were the only ones to countenance it.

It is pretty certain that while the frame retains its present form the shape of the saddle post will remain as at present designed.

Worse Than Sweeping the Streets.

"You would be surprised if you knew how low some of the repair men are working for the supply houses here," writes an Eastern tradesman to the Bicycling World.

"They are selling built-up wheels with coaster brakes as low in some extreme cases as \$5, which is just about the price we have to pay for the material—within 50 cents of it at least. This will give you an idea of the prices they must pay to get their work done.

"They are giving, I have been told, 15 cents each for spoking wheels—that is, new wheels; and from \$1.50 to \$2.50 for assembling a frame and fork, including cutting, fitting, pinning and filing, ready for enamelling. Why, a man could make more at sweeping the streets than at doing work at such prices."

The Best Selling Tire of the Year

PRICE
RIGHT

THE GOODYEAR PUNCTURE PROOF

THE RIDERS
WANT IT

Dealers Write

GOODYEAR TIRE AND RUBBER COMPANY, AKRON, OHIO.

ASKS THEM WHY

English Repairer Makes Some Inquiries but Gets Little Satisfaction.

It is not easy to imagine anything more unchanging than cycle construction as practised by the manufacturers of the "tight little isle."

To be sure, the English bicycle now has a coaster-brake frequently and a cushion frame or chainless gear occasionally—very seldom, however. This season, too, cross frames are cutting a swath—on paper, at least—and may eventually amount to something. But these are merely the exceptions which prove the rule, and the English machine of to-day is almost indistinguishable from that of two, three, or even four years ago. The *Bicycling World* man examined one just a few days ago, and was more convinced than ever of this fact.

On this side of the water discussions as to constructional features have almost ceased entirely, and for a very simple reason. There is no longer any difference of opinion as to the best practice, and in general the same methods are followed by nearly all manufacturers. Complaints have almost ceased to be made—a sure sign that there no longer exists any particular cause for them.

This is very far from being the case with English machines, however. From the dealers and repairmen, especially, complaints both loud and deep are made, but apparently without the slightest effect. They are aimed at archaic methods of construction, for the retention of which no excuse whatever exists. A few of them are touched on by a repairer in an English contemporary in this wise:

"I desire to point out several 'stupidities of construction' common to most manufacturers, in the hope that whatever we standardize we shall at least avoid these. I look at the subject from the point of view of the large and increasing business of the cycle repairer, whose experience is of a different character from the makers' experience and preconceived ideas, for a bicycle which has been out in the dust and mud is not to be studied under theoretical conditions which may be applicable to it when it leaves the factory as new; hence we want designers who will pocket their theories and apply such knowledge as is obtainable only from a practical acquaintance with all manner of cycle repair work. The following have always been puzzles to me:

"1. Why should the shroud on the sides of chain wheels be so near the bottom of chain wheel teeth that any chain invariably runs its side links thereon after a few months' wear, resulting in a creaking noise, and frequently the stiffening of the joints of the chain by the burr which is thus made on the inner edges of the side links?

"2. As the wheel on rear hub has its

teeth worn away much quicker than the bracket chain wheel, why should it be made a dish wheel by nearly all English makers, so that it cannot be reversed on the hub to give the opposite or unworn side of its teeth to the wear of the chain? (Note.—American hub chain wheels are nearly all reversible.

"3. Why should some of our chain makers make chains (block chains, I mean) with side links of such a shape that the chain cannot well be reversed after wear to give the unworn side of chain blocks to the chain wheels?

"4. Why is it becoming a 'lost art' to securely attach a pedal spindle into a crank end, as the old-fashioned nut at the back certainly accomplished? What could be simpler than to drill a hole through a crank, tap it, countersink it at the back, and fit a nut with the hexagon portion one-eighth inch thick at the back on to the pedal spindle to lock it in the crank? Such an arrangement could be guaranteed not to work loose, and it is rather curious to notice that nine cycles out of ten (various makes which come into my hands with loose pedal spindles) have ample space at the back for a nut one-eighth inch thick to clear both chain and frame.

"As I fear I am trespassing upon your space, I pass over such minor 'stupidities of construction' as cutting a steering tube top nearly off to avoid the result of having attempted too much with one bolt and nut, of making cranks with knife edges which are admirably adapted to cut a cyclist's shoe, of making the length of the plain portion of any crank cotter pin longer than the hole it has to fit into, etc. But the stupid construction which crowns all as a repairer's annoyance is the subject of my final puzzle:

"5. Why should it be necessary, to take off a gear case, a chain, the rear wheel out of the frame, the gear wheel off the hub, or, worse still, dissect a free-wheel clutch, and remove its centre portion off the hub, all merely to get a single spoke in chain side of rear wheel?

"I wrote several years ago to the manager of one of our leading cycle manufacturing companies asking that question and suggesting a simple remedy. I received the following reply, upon which comment is needless: 'It is not anticipated when manufacturing cycles that the spokes shall break and need replacement.' How little it would add to the cost of manufacture to adopt keyhole-shaped spoke holes in rear wheel hub! The spoke head could be slipped through the larger end and held by its nipple in the smaller end."

One More Rubber Substitute.

Another India rubber substitute has been introduced, this time from Sweden. It is a material made of varnished Japanese rice paper, the sheets of which are placed one on top of the other and subjected to great pressure. The outside is covered with a layer of Japanese cork. The substitute is said to be elastic, light in weight and quite air and water proof.

NEVER WEAR OUT

Dealers and Repairers Declare Present-day Bicycles are Everlasting.

Nowadays one of the tests by which cycles are tried—and sometimes found wanting—is durability. Indeed, to such an extent has improvement in this direction been carried that dealers and repairers are making complaint, asserting that the manufacturers have gone a considerable distance in the direction of taking away their occupation.

Bicycles of the present day are too good, they say. They never wear out, and require repairing only at long intervals or when an accident of some kind has occurred. Riders keep on using their machines year after year, feeling surprised if not aggrieved when anything wears out; and even when that happens they frequently buy a new part instead of having the old one repaired.

Now that it is no longer the fashion to get a new cycle every season, there is nothing to impel riders to discard their old wheels until they cease to be fit for service. This being so, it is making matters worse, from the viewpoint of the salesman, to build machines that are almost imperishable, yet this is just what most of the makers are doing.

In spite of these complaints there is every likelihood that the machines will get better instead of worse as the years go by. The standard is much higher than it ever was, and the difficulty of turning out well-nigh perfect machines has been much lessened. Each season there is less excuse for trouble, and consequently there is less and less of it.

As far as the dealers are concerned there is some consolation in the fact that guarantee troubles are much less in evidence than formerly. There is no longer friction between buyer and seller, disputes which usually ended in one way—the more or less graceful withdrawal by the dealer from the position he had taken and the pocketing of whatever loss the job might entail.

The repairer has no such consolation, however. He reaped his great harvest from the multitude of cheap bicycles, which got into the hands of riders usually as unskilful as they could well be. With their disappearance, or at least decline, he finds much of his occupation gone. A different class of work partly fills the breach, but matters have changed for the worse.

In changes, novelties, improvements—whatever they may be termed—in the new machines the chief relief is to be looked for. With an unchanging model, replacement will come but slowly. Riders who wait for machines of reputable make to wear out before investing in new ones will wait long.

But there are real improvements with which to tempt them. Scarcely a dealer who has made an earnest effort to bring them to the attention of his old customers has failed to meet with some measure of success. Some of them have done wonderfully well and are taking a very hopeful view of the future. They see plenty of business even in replacements, the field only requiring intelligent working to yield rich returns.

What they have done others can do as well. But work of this character requires some effort, and it remains to be seen how much dealers are willing to devote to it.

COMFORT

with

SPEED

is the

CUSHION FRAME

Motto.

The CUSHION FRAME is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold WITHOUT IN THE LEAST DETRACTING from the SPEED or POWER of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy, "get there" riders who at first "scoffed" the idea of COMFORT being combined with "speed and power" in a bicycle.

HYGIENIC WHEEL CO.,

220 Broadway, New York.

Owners of the Cushion Frame Patents.



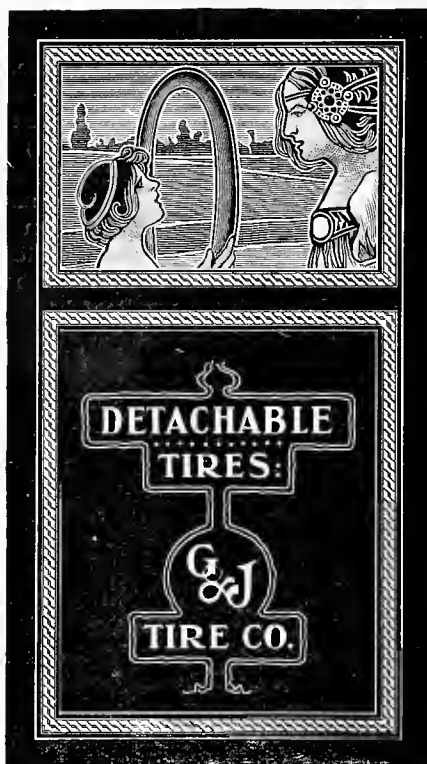
If you are looking for the best DRY BATTERY on the market, buy the DOW, and accept no other. For catalogues and price list send to the DOW PORTABLE ELECTRIC CO. Offices: 218 Tremont St., Boston, Mass.; 1135 Broadway, New York, N. Y.; Lippincott Bldg., 12th and Filbert Sts., Philadelphia, Pa.; 160 Washington St., Chicago, Ill.

Catch Phrase from Indiana.

The Indiana Chain Co., of Indianapolis, not only have a new chain, but a catch phrase that is "pat" and that they quite naturally believe fits the chain properly and well. "Every link is right" is the phrase, and we want it lodged in the brain of all who have to do with bicycle chains," writes Frank Wood, of the company. "Every link is right." Isn't it a dandy? I think we will yet go daft on the phrase. Pass it along the line."

Where Truth and Color Blend.

As a finishing touch to a campaign of publicity that has left its mark and that can scarce fail to prove of enduring effect, the G & J Tire Co., of Indianapolis, have just issued a catalogue, the cover of which is



shown by the accompanying illustration; the illustration, however, conveys no idea of the coloring nor of the contents of the little volume; it must be seen to be appreciated.

The cover is a symphony in colors, but the catalogue is not "all cover"; within are a round dozen of wayside scenes that are as rich in coloring. The letter press is "chatty" and makes "good, easy reading," and tells the story of the G & J tire as the merits of the tire itself so richly justify; for in good, plain English, there's not a better tire on the American market or on any other market, and few so really good. The G & J people should, however, penalize the catalogue compiler for his use of the term "bike" to describe a bicycle.

Burglars entered the store of Eugene L. Remington at Woodburn, Ore., recently, and got away with a few dollars' worth of sundries. They have not yet been apprehended.

Why Buy New Jersey Mud

mixed with Sulphur and baked on to Fabric, when for about the same price you can buy really High Grade Tires?

No. 66 Fisk just one-half factory price, and Kangaroo one-half price.

Write for prices before they are closed out.

BOSTON CYCLE AND SUNDRY CO.,

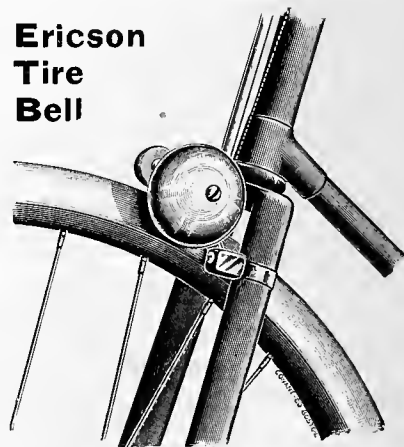
J. M. Linscott, Manager,

7 HANOVER ST.,

BOSTON, MASS.

THE TEST OF TIME

has demonstrated the success of the

**Ericson
Tire
Bell**


operated by a small lever on the handlebar which may pressed without moving the hand. Gives a short or a long ring, as desired—the very bell for motorcycles. Simple, durable, effective; does not rattle. Write for prices.

NUTTER, BARNES & CO., 366 Atlantic Ave., Boston, Mass

TORONTO'S TARIFF

The Charges on Repair Work that Prevail Across the Border.

While higher in a few petty details, the prices of repairs across the border, generally speaking, rule a trifle lower than in this country. This is made plain by the tariff just adopted by the Toronto Cycle Board of Trade, as follows:

FRAME GROUP.

Cutting down frame and enamelling.....	\$6.00
One new bar in diamond frame.....	4.00
Two new bars in diamond frame.....	6.00
One back stay, or fork, and enamelling.....	3.00
Two back stays, or forks, and enamelling.....	4.00
New head and enamelling.....	4.00
One fork stem, enamelling and plating.....	1.75
Splicing fork stem (plating, enamelling extra).....	1.00
One new fork side put in, brush enamel.....	1.50
Two new fork sides put in, brush enamel.....	2.25
One new fork tip, brush enamel.....	.75
Two new fork tips, brush enamel.....	1.00
One new fork crown put in, brush enamel.....	2.00
One new fork crown put in, baked enamel and plated.....	2.50
One new fork made to order, brush enamel.....	3.00
One new fork made to order, enamelled and plated.....	3.50
Lining frame.....	.50c. to 1.50
Lining fork.....	.50c. to .75
Repairing broken bar and brush enamel.....	\$1.50 to 2.50
Repairing broken bar and enamel.....	3.50
Brazing frame and fork.....	1.50
Tiling frame and fork.....	3.50

WHEEL GROUP.

Respeking front wheel.....	\$1.50
Respeking rear wheel.....	1.50
Truing wheels, each.....	.25c. to .50
Truing wheels, if tires are removed.....	.50c. to .75
Putting in one spoke.....	.15
Putting in one spoke, sprocket side.....	.25
Each additional spoke.....	.10
Over five spokes, each.....	.05
New rim and spokes (laminated).....	2.00
Putting in new rim.....	1.50
Front wheel axle, to order.....	.50
Rear wheel axle, to order.....	.50
Nuts for axles, to order.....	.25
Standard nuts.....	10c. to .15
Standard nickel washers.....	.5c. to .10
New front hubs put in...from \$2.50 upward	
New rear hubs put in...from \$3.00 upward	
Cones to order.....	.75c. to 1.50
Standard cones.....	.50c. to .75
New rims with G. & J. or Dunlop tires.....	12.00

HANGER GROUP.

Crank axle, to order (plating extra).....	\$1.50 to \$2.50
Front sprocket, to order, fitted.....	\$2.00 to 4.00
Detachable sprocket.....	\$1.50 to 2.50
Rear sprocket, to order.....	1.00
Cups, to order.....	.75c. to 1.25
Cones, to order.....	.75c. to 1.25
Standard cranks, each.....	.75c. to 1.50
Cranks welded and plated, each.....	1.00
Crank cotter pins, fitted, each.....	.25
Repair axle and fitting new keys.....	.75c. to 1.00
Straightening axle.....	.50c. to .75
Straightening crank.....	.15c. to .25
Straightening pedal shaft.....	.15c. to .25
Taking pedal apart to replace balls (balls extra).....	.15c. to .25

CHAIN REPAIRS.

New side plate, block or rivet, each....	\$.25
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Each additional link.....	.10
Bolt or nut, each.....	.10
Fitting bolt or nut.....	.10

HANDLE BARS.

Handle bars to order.....	\$2.00 to \$4.00
Handle bars, rebending (plating extra).....	.50c. to 1.50
Cementing on grips.....	.15
All regular bars sold at list prices.	

BRAKES.

Morrow coaster and New Departure, fitted.....	\$8.00
Pedal pins, stock pins.....	.50
Pedal pins, made to order.....	.75c. to 1.00

TIRE REPAIRS.

For putting in inner tubes.....	\$1.25 to \$1.75
Vulcanizing punctures or small cuts in tires.....	.50c. to .75
Vulcanizing new stem and valve.....	.75
Plugging single-tube tires.....	.25
Putting in shoe valve.....	.50
Putting in metal part only.....	.35
Putting in regular valve and mushroom	.50
Repairing inner-tube tires.....	.25c. to .50
Cementing tires to rims, each.....	.15
Testing tires.....	.10
Plugs, each.....	.05

OVERHAULING.

Bicycles enamelled, all nickelled parts replated, with new spokes and grips.....	\$10.00
Bicycles cleaned and adjusted, external.....	.25c. to .50
Bicycles taken apart, bearings cleaned, oiled and adjusted.....	1.00
Bicycles, chainless, taken apart, bearings cleaned, oiled and adjusted.....	1.50
Cleaning single wheel bearings.....	.25
Cleaning head bearings.....	.25
Cleaning hanger bearing.....	.50
Cleaning pedals, per pair.....	.25c. to .50
Cleaning chain and oiling same.....	.15

ENAMELLING AND NICKELLING.

Enamelling frame and forks, black.....	\$2.50
Striping.....	.50c. extra
Striping and decorating.....	\$1.00 extra
Enamelling fork, plain black.....	.75
Enamelling rims, per pair.....	1.00
Handle bars, nickelled.....	.60c. to .75
Cranks, nickelled, per pair.....	.50
Hubs, complete, nickelled, per pair.....	.50c. to .75
Pedals taken apart, nickelled and set up	.75
Front sprocket nickelled.....	.50c. to .75
Front fork and crown nickelled and enamelled.....	1.00
Front fork tips nickelled.....	.50
Enamelling frame and fork only.....	1.50
Enamelling in colors.....	\$3.00 to 5.00
Plating bracket, including pedals.....	1.75
Seat post.....	.25
Head fittings.....	.25c. to .50

CRATING.

Crating bicycle, furnishing crate.....	\$.75
Crating bicycle, wrapping all parts of same to go abroad.....	1.25
Crates.....	.50

DRESS AND CHAIN GUARDS.

Putting on and furnishing dress guards complete.....	.75c. to \$1.00
Putting on chain guards, complete.....	\$1.00 to 2.00
Lacing guards, complete, plain.....	.75
Lacing guards, complete, fancy.....	\$1.00 to 1.25
Lacing chain guards.....	.25c. to .50

Only One Left.

Notwithstanding the cheapening of aluminum, as well as the improvements which have been made in its manufacture, but one aluminum bicycle is now being manufactured. The others, which had a very ephemeral existence, have passed away.

REPAIRERS' PRIVILEGES

Why and How Their Work Gives Them Knowledge Possessed by Few.

The position of the repairman has its peculiar privileges. To him come the results of innumerable experiments in design. He sees the result of certain methods of construction in a way that the designers themselves are not privileged to see them. If one desires an opinion on any standard type of cycle the old repair hand is usually able to give it. He will be able to tell that such-and-such a company's cranks are soft; so-and-so's pedals are never securely fastened; such-and-such a machine gives way at the forks, and so on.

The particular weaknesses of certain manufacturers protrude themselves on the attention of the repairman, and if he has a logically balanced brain he will be able to take note of the why and the wherefore of certain failures, and thus becomes possessed of a knowledge which would be invaluable to a designer or constructor.

Again, in the repair shop the inner parts of a cycle are ruthlessly laid bare to the searching eye of the repairer. The gauge of tube, the fitting of reinforcements, the pinning and the quality of the brazing turned out by different firms become known to him and are noted for future reference. No shoddy work, no filling with brass of dented tubes, no swaging or filing down of tubes to make them fit their sockets, no patching of cracked and broken lugs with pieces of sheet steel and wire brazed together, can pass his ken. When he takes down a machine to fit new tubes or effect a large repair, all these things are noted against the manufacturer, and the repairman gains rapidly in experience.

There used to be an old saying which ran something like this:

"In days of old
The workman wrought with zealous care
Each unseen and hidden part.
For the gods see everywhere."

Those days, unfortunately, have passed, and to-day the outward parts are made presentable and the "unseen and hidden parts" left to the scrutiny of the gods, out of whom no dividends can be extracted. Nevertheless, to the repairman these generally unseen parts are disclosed, and he forms his own opinion of the work without considering the outside finish, which he is probably about to destroy under the blowpipe.

For Those Who Seek Bargains.

To those on the scent for bargains the Bridgeport Gun Implement Co., of this city, have something that should strongly appeal—an assortment of the well-known Record pedals. The assortment was taken over when the Bridgeport people purchased the Record patents and material, and is being offered at a price that should move it in short order.

The Retail Record.**FIRES.**

Fairmont, Neb.—R. G. Hill's entire stock destroyed.

NEW STORES.

Akron, N. Y.—E. F. Stimson.
Gillman, Ill.—C. F. Townsend.
Raceville, N. Y.—Frank Jones.
Pascoag, R. I.—Fred Marsden.
Pittsford, Mass.—S. S. Wheeler.
Bay City, Mich.—Thorp & Carey.
Oregon, Ill.—Mark R. Rummery.
Maywood, Ill.—William Mertens.

Glens Falls, N. Y.—Dennis Kennedy.
Lewiston, Me.—C. H. Day, Ash street.
Barton, Vt.—Richard Bement, repair shop.
Slatenville Springs, N. Y.—B. N. Mld-daugh.

Florence, Mass.—Smith Bros., repair shop, on Main street.

Ithaca, N. Y.—Rouse & Dickerson, State and Geneva streets.

Scipio, N. Y.—Wesley George and Austin Comstock, repair shop.

East Granby, Conn.—Harlow Drew has reopened his repair shop.

Two Harbors, Minn.—L. D. Rose.
South Lawrence, Mass.—Edgar Leake, Boxford street, reopening.

West Haven, Conn.—Dunsing & Newcomb, repair shop, on Union street.

CHANGES.

Dundee, N. Y.—Claude Miller, removed to Tyrone, where he will continue his repair business.

Marblehead, Mass.—William B. Laskey, School street, discontinued his business.

Nashua, N. H.—N. W. Tarbell Bicycle Company removed to No. 241 Main street.

C. B. BARKER & CO., Ltd.,

B. 93 READE ST., NEW YORK,

**B
A
R
K
E
R
&
C
O.
L
t
d.**

SAY

that no dealer who values his reputation as a buyer can afford to place an order for

**TIRES, PARTS,
SUNDRIES OR FITTINGS,**

before obtaining their catalog and quotations. The assertion should be hint enough to cause you to write them.

NOTICE.

We beg to advise the trade that we obtained an injunction, which is as follows:

JACOB FROEHLICH, MORRIS FROEHLICH AND JESSE FROEHLICH, TRADING AS THE DELAWARE RUBBER CO.

vs.

DAVID GRINBERG, ADOLPH MORRIS AND HANNAH GRINBERG, INDIVIDUALLY, AND TRADING AS THE MANHATTAN STORAGE CO. AND PURITAN RUBBER CO.

*Common Pleas No. 1.
March Term, 1901.
1257.*

And now, 24th of April, 1901, it is ordered and decreed that an injunction issue to continue until further hearing enjoining DAVID GRINBERG, ADOLPH MORRIS and HANNAH GRINBERG, their agents, servants, workmen, clerks and employees from selling or exposing to sale any rubber tires bearing thereon the brands "Delaware Special," "Haverford," or "Union," and from using said brands or words in connection with the sale of rubber tires in such manner or form as is calculated to mislead the public and cause them to purchase the goods of said DAVID GRINBERG, ADOLPH MORRIS and HANNAH GRINBERG, or of any firm or partnership they compose as and for the goods of the Delaware Rubber Co. Security is One Thousand, to be first entered.

(Signed) ABRAHAM M. BEITLER, J.

We have been compelled to take such legal action in the matter as a protection to the trade and ourselves. We have established an enviable reputation for our tires, which are known everywhere as the highest standard. The above method is a proof of the merits of our goods. Our aim, our motto, our success has been by giving the trade the highest standard grade of goods at lowest prices, and if you are looking for the greatest line of quick selling, satisfaction giving tires ever made, write us at once for particulars, prices, etc.

DELAWARE RUBBER CO.,

244 Market St., Philadelphia.

SPECIAL NOTICE.

Worcester, Mass., April 24, 1901.

To Whom it May Concern:—

We have received letters from several of our customers, saying that they had been notified by the Wyoma Coaster Brake Co. that they had entered suit against us for infringement of the "Wyoma" Coaster Brake. We wish to say that this statement is FALSE as we know of no suit that has been entered against us in this matter, and would further advise each and every one of our customers using the "E Z" Coaster Brake, that we will protect them and stand back of our goods.

Respectfully,

REED & CURTIS MACHINE SCREW CO.

Elfin
Bicycles.

Fairbanks Rims, Hartford Tires, Fauber Hangers, Indestructible Grips.

This is part of the equipment of the world-renowned Elfin Juvenile Bicycle, and there is the Reversible Crank Bracket and the Easy Chain Adjustment — which no other Juvenile Wheel has. This is the

Standard
Of The World

in Juvenile Bicycles.

Whether you live in Pan-America, Europe, Asia, Africa, Australia or anywhere else on the globe do not fail to write for catalog and get in line with the agency.

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Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.

The Week's Exports.

"Big weeks" in the matter of cycle exports are now the rule and not the exception. It only remains to be said that April kept up its pace to the end, and that last week was a "big" one. Large shipments were made in all directions. As usual, England, France and Germany were well to the fore; but Holland, Denmark, Sweden and the West Indies also accounted for tidy purchases. The record for the week, which closed April 30, follows;

Antwerp—3 cases bicycle material, \$30.
Argentine Republic—3 cases bicycles, \$144.
Amsterdam—1 case bicycles, \$25.
Bristol—1 case bicycle material, \$69.
British possessions in Africa—46 cases bicycles and parts, \$1,419.
British Guiana—8 case bicycles and material, \$207.
Berlin—11 cases bicycles, \$415.
Brazil—2 cases bicycles and material, \$89.
Bremen—6 cases bicycles, \$135; 4 cases bicycle material, \$175.
British East Indies—2 cases bicycles, \$250; 2 cases bicycle material, \$108.
British Australia—1 case bicycles, \$28.
British West Indies—124 cases bicycles and material, \$2,082.
Central America—6 cases bicycle material, \$150.
Cuba—4 cases bicycles and material, \$175.
Christiania—1 case bicycles, \$25.
Copenhagen—44 cases bicycles, \$1,595; 69 cases bicycle material, \$2,504.
Dutch East Indies—8 cases bicycles and material, \$1,031.
Glasgow—4 cases bicycles, \$140.
Genoa—28 cases bicycle material, \$1,141.
Gothenburg—1 case bicycles, \$25.
Helsingfors—1 case bicycle material, \$5.
Hamburg—214 cases bicycles, \$5,578; 83 cases bicycle material, \$3,689.
Havre—156 cases bicycles, \$5,562; 10 cases bicycle material, \$398.
Londonderry—2 cases bicycles, \$53.
Liverpool—32 cases bicycles, \$625; 12 cases bicycle material, \$740.
London—202 cases bicycles, \$2,050; 108 cases bicycle material, \$5,730.
Moscow—100 cases bicycles, \$3,000.
Mexico—3 cases bicycle material, \$119.
Newfoundland—6 cases bicycles and parts, \$272.
Pern—1 case bicycles, \$18.
Rotterdam—310 cases bicycles, \$6,453; 46 cases bicycle material, \$1,091.
Stavanger—10 cases bicycles, \$1,150.
Salonica—3 case bicycle material, \$75.
Santo Domingo—3 cases bicycles and parts, \$102.
Southampton—4 cases bicycle material, \$130; 46 cases bicycles, \$1,300.
St. Petersburg—3 cases bicycles, \$274.
Stockholm—140 cases bicycles, \$6,101; 7 cases bicycle material, \$100.
United States of Colombia—3 cases bicycles and parts, \$69.
Uruguay—2 cases bicycle material, \$77.
Venezuela—1 case bicycle material, \$12.
Zurich—1 case bicycles, \$25.

WHEN YOU COAST,

coast comfortably.

WHEN YOU MOTOCYCLE,

(which is akin to continuous coasting),

motorcycle comfortably.

Half the discomforts of sitting still, with the feet on the pedals and the weight on the saddle, is due to the use of improper saddles.

HERE'S THE PROPER ONE.



The proper length, the proper breadth, the proper design, the proper spring, and, being a Persons, the construction, finish, quality and price are, of course, distinctly proper.

There's

MORE THAN PIN MONEY

in This Saddle for the Dealer

who appreciates an opportunity when it is created. Any wide-awake agent can sell dozens of them to riders of bicycles with coaster-brakes who are minimizing their pleasure by using improper saddles.

PARTICULARS AND PRICES ON REQUEST.

PERSONS MFG. CO., WORCESTER, MASS

WANTS AND FOR SALE.

15 cents per line of seven words, cash with order.

FOR SALE.—Bicycle Repair and Sundry Jobbing Business and Sporting Goods. Best (central) location in a city of over 100,000; fourteen years in present location, and oldest established, pioneer house of the city; constantly increasing trade, and not a year but what books will show a clean, good profit. Also good Motor Cycle business, already started. Bargain for right party. Full information and reason for selling. Address Edward Buffum, 167 Oliver St., Boston, Mass.

Want Interchangeable Burners.

Now it is interchangeable burners for acetylene gas lamps that are being talked of. Such burners would be very welcome, it is said, as great difficulty is experienced in getting a supply of burners fitting each particular make of lamp. It happens very often that lamps have to be discarded owing to the impossibility to renew the burner, as the manufacturer had either gone bankrupt or the particular pattern had been changed. A German acetylene lamp manufacturer is collecting material to find out how it could be managed to make interchangeable burners, which would be a great boon.

In Case of Emergency.

In these days, when both the jobber and the manufacturer of sundries are wide-awake, retailers are seldom permitted to run out of articles likely to be in demand. Even should this happen, however, it is usually easy to get a fresh supply quickly. Consequently an enterprising dealer seldom finds himself compelled to turn trade away.

It does occasionally happen, however, that for some reason or other his stock of some good selling sundry is exhausted. In such case, if he is really worthy of the name of enterprising, he will procure a fresh stock in some way, and thus avoid the necessity of telling his customers of his predicament—always a very annoying confession.

His ability to procure a temporary supply depends on the cordiality of his relations with his fellow dealers. If he is on good terms with them he can nearly always obtain from some one who is well stocked a portion of his holding of the desired article.

If he is wise he will not try to buy it at the wholesale price. It is much better to pay a slight advance over this to cover freight or express charges, bookkeeping, etc. In this way he will enable the seller to make a small profit and dispose him to grant similar favors if they are asked at any time.

If we spent

\$1,000,000

in advertising some people would still use cheap and leaky oilers. Spend a few cents more and get a **"PERFECT"** Pocket Oiler. You will be well repaid.



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240-242 West 23d Street, New York.

The Manson & The Sherman

**BEAUTY AND
RELIABILITY COMBINED.**

**THE MOST DESIRABLE
OF ALL AGENCIES.**

— ASK FOR IT —

THE SHERMAN CYCLE CO. CHICAGO, ILL.

Sheet Steel Bicycle Parts.

All Kinds of Metal
Stamping

THE CROSBY COMPANY, Buffalo, N.Y.

WOLFF-AMERICAN BICYCLES.

STEARNS BICYCLE AGENCY, - Syracuse, N. Y.

OUR
CRANK
HANGER
DOES
IT.

The
Racycle

DOES
WHAT?
MAKES
IT RUN
EASY.

ECLIPSE BICYCLES

Better than ever.

Good Agents Always Wanted.

SEYMOUR MFG. CO.

99 CHAMBERS ST., NEW YORK.

Conditions Affect Results.

Where an emery wheel is doing satisfactory work on a given job at a given speed any change of the speed is likely to make that wheel work unsatisfactorily on the same job, and to make it appear as though the wheel itself were of an entirely different nature, says an authority. It is also found to be a good practice to experiment somewhat with the speed of a wheel when for any reason it is found not to work satisfactorily. Sometimes a wheel works very badly, but when the speed is either reduced or increased, works in an entirely satisfactory manner. This shows how easy it is to be mistaken and charge a failure to the wrong cause, this, of course, applying not only to failures of emery wheels, but to many other things used in machine shops as well—a fact that most tool builders know full well.

Watches are not Wearing Apparel.

Under the Massachusetts law which exempts from execution the "necessary wearing apparel" and the tools of trade a bankrupt recently sought to retain his watch as an exempt asset. The Supreme Court of the State has decided, however, that a watch is not "necessary wearing apparel," and compelled the bankrupt to disgorge.

THE OAK.



NEWARK (N. J.) CYCLE SPECIALTY CO., MAKERS.

The Week's Patents.

673,040. Bifurcated Garment. Frank W. Weston, Boston, Mass. Filed July 26, 1900. Serial No. 24,910. (No model.)

Claim.—A bifurcated garment, having an upward extension at the front and at the rear, and a belt secured at its lower edge to the upper edge of the garment between the ends of the said extensions, said belt being also secured to the end edges of said extensions, and having free ends which overlap said extensions, and fastening devices on the free ends of said belt at front and rear.

673,055. Pneumatic Tire. John Hubbard, Upper Holloway, England. Filed May 26, 1900. Serial No. 18,138. (No model.)

Claim.—In a pneumatic tire for the wheels of vehicles and the like, in which the outer cover or envelope is formed of a series of spirally wound threads or wires in separate layers, crossing each other at an angle, such envelope being adapted to withstand the pressure of an independent inclosed tube, when mounted upon the rim of a wheel, treating one portion of the outer envelope so that its threads are suitably connected or cemented together, the remaining portion having no such means of attachment, the latter portion having free threads which can be easily displaced so as to permit of the inclosed tube being inserted or withdrawn, when the component parts are in a collapsed condition, as and for the purpose herein described and illustrated.

673,180. Vaporizing Device for Explosive Engines. Henry G. Tassell, San Francisco, Cal. Filed Dec. 4, 1900. Serial No. 38,694. (No model.)

Claim.—1. In volatilizing apparatus for hydrocarbon oils, the top and bottom chambers provided with grated passages for the passage of hot gases, an outer and an inner tube connecting said chambers, forming an annular space communicating with said passages and said chambers, and means for supplying oil to the interior of said inner tube, substantially as specified.

673,207. Seat Attachment for Bicycles. Frank S. Huber, St. Louis, Mo. Filed Aug. 13, 1900. Serial No. 26,685. (No model.)

Claim.—1. A seat attachment, consisting of the T-casting secured to and moving with the usual seat support, and provided with a slot in its vertical portion, the handle carried by the rear projection of said support, the angled bar having its upper end within the lower projection of the T-casting and being adapted to be adjusted at different elevations, a locking clip for holding it therein, and the supporting rods for upholding the rear end of the angled bar, substantially as specified.

673,336. Motorcycle. Edward N. Dickerson, New York, N. Y. Filed March 13, 1896. Serial No. 583,013. (No model.)

Claim.—1. The combination with the frame and pedal shaft of a bicycle, of a motor engine having a plurality of cylinders each connected to a part of the frame, a crank shaft with which the pistons of the cylinders are connected, and means for driving the pedal shaft from the crank shaft, substantially as set forth.

673,342. Back-Peddalling Brake. William G. Schaeffer, Reading, Pa., assignor of fifty-one one-hundredths to James C. Reber, same place. Filed Sept. 30, 1899. Serial No. 732,204. (No model.)

Claim.—1. The combination of the hub, the brake flange thereon, a sleeve having a brake ring adapted to engage the flange, means for preventing rotation of the sleeve

but allowing it to move longitudinally of the hub, a cam ring within the sleeve, a clutch for locking said ring to the sleeve, a sprocket on the hub, a clutch for locking said sprocket to the hub, and a cam on said sprocket adapted to engage said cam ring when the motion of the sprocket is reversed, with a spring interposed between the sleeve and the base of the flange adapted to separate the brake ring from the flange when the sprocket is turned forward.

672,925. Acetylene Lamp for Vehicles. Raoul Turr, Paris, France. Filed Dec. 6, 1897. Serial No. 660,988. (No model.)

Claim.—1. In an acetylene lamp, the combination with a gas-generating portion, and a gas-supply tube leading therefrom, of a burner portion comprising a tube in communication with the gas-supply tube, and perforated as described, an elastic bulb surrounding the perforated portion of the tube, a casing surrounding said bulb and a bracket connected with the said casing and adapted to support the parts from a vehicle.

Curious Conditions Changed by Quiet.

When fated by the cares and worries of this life, when filled with a spirit of unrest, the best thing imaginable for the afflicted to do is to hie himself to new scenes—to the primeval wilds, in that part of New England known as the fishing regions, there to enjoy a period of absolute quiet.

The enjoyment, the complete retirement in which one finds himself, is the best health restorer you can find. The manipulation of hooks, nets and lines, the sight of a big, wary fish, anxious for a tussle, and the excitement attending the landing of one of these fine fellows will drive away the blues, and every moment of the spring vacation is one of intense enjoyment.

The regions, or sections, which offer allurements to the early fisherman are several, but the most prominent and conspicuous are the Moosehead and Rangeley regions, though many sportsmen prefer the Allegash region or the territory in Washington County, Maine, while others single out Lake Winnepesaukee or Memphremagog, or Sunapee or Champlain, or, perhaps, some one of the streams or lakes of the Adirondacks is the choice for the spring sport.

The Boston & Maine Railroad reaches every section in which spring fishing is a predominant feature, and the pamphlet, "Fishing and Hunting," gotten out by its General Passenger Department, whose offices are in Boston, Mass., is chock-full of interesting information which every sportsman should read, and a two-cent stamp sent to the above address will procure it for you.

Difference in Efficiency.

According to a well-known authority, a poor tire may give a traction efficiency of only 42 per cent, while a really good tire will give an efficiency of upward of 70 per cent. This should convince even the rider who thinks one pneumatic tire is as good as another, provided it does not puncture, that the gain in a first-class tire is well worth the extra cost.

A HEART TO HEART**TALK WITH THE DEALER.**

The subject of Coaster-Brakes is one that is comparatively new to most dealers. Years of experience in the buying of other cycle accessories has taught the average dealer just which are the best lines to handle from the standpoint of combined quality and price, and he profits thereby. Have **you** discovered this combination in Coaster-Brakes? Hundreds of dealers have, who are to-day pushing the sale of the

ACME COASTER-BRAKE.

The satisfaction which this brake will give has been proven by a season's use, and our guarantee is the broadest. You can obtain a sample from your nearest jobber, which we know will convince you, and

THE PRICE IS RIGHT.

We can furnish you with any quantity of attractive printed matter, imprinted with your business address, and will be glad to supply you. Just drop us a line for further information on a good thing. Thanks for your time. That's all.

ACME COASTER-BRAKE CO.,

ROCHESTER, N. Y.

Summer Homes.

In the Lake Country of Northern Illinois, Wisconsin, Minnesota and the Upper Peninsula of Michigan, on the line of the Chicago, Milwaukee & St. Paul Railway are hundreds of most charming Summer resorts. Among the list are: Fox Lake, Delavan Lake, Lake Geneva, The Lauderdale Lakes, Waukegan, Oconomowoc, Palmyra, The Dells at Kilbourn, Elkhart Lake and Madison, Minocqua, Star Lake, Frontenac, White Bear, Minnetonka, Marquette, Spirit Lake, Okoboji, Big Stone Lake, etc., etc.

For illustrated booklets "Summer Homes for 1901," and "In the Lake Country," send address with six cents in postage to F. A. Miller, General Passenger Agent, Chicago, Milwaukee & St. Paul Railway, Chicago, Ill.

L. R. HALL
Enameling and Nickeling Co.
ENAMELING, NICKEL-PLATING
and VULCANIZING for the trade.

Carriage Tires
 Our Specialty

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California in 3 days

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Electric Lighted—Chicago.
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 Irish Trade is

THE IRISH CYCLIST

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All American wheelmen who desire to keep themselves posted upon matters concerning the cycle in Europe, its trade, mechanics, and sport, should subscribe to

THE CYCLIST

AND BICYCLING AND TRICYCLING TRADES REVIEW.

The only recognized authority of English trade and manufacture. Sent post free to any part of America for one year, \$3.25. American manufacturers having novelties in machines or sundries to introduce should advertise in

THE CYCLIST.

Terms on application to

LILFE SONS & STURMEY, Ltd.,
 19 Hertford Street, Coventry, England.

Members of the American Trade visiting England are invited to call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street, Ledgate Circus, London, E. O.

ANY DEALER

CAN
 PUT
 A

C. C.

ON
 YOUR
 HUB.

It is not necessary to buy a new hub in order to get the best Coaster on the market. The C. C. Brake has been thoroughly tested and is fully guaranteed. Booklet free. Address CANFIELD BRAKE CO., CORNING, N. Y.



Through Train and Car Service in
 effect April 29, 1900.

TWO FAST TRAINS

	"Chicago" Special Via Lake Shore.	"North Shore" Special Via Mich. Cen.
Lv. Boston	10.45 A.M.	2.00 P.M.
Due Albany	4.10 P.M.	7.35 "
" Syracuse	7.55 "	11.40 "
" Rochester	9.40 "	1.30 "
" Buffalo	11.40 "	
" Toledo	5.55 A.M.	
" Detroit		8.15 "
" Chicago	11.50 "	4.00 P.M.

The Finest Pullman Cars will be run on these trains. Tickets and accommodations in sleeping cars for sale at City Office, 366 Washington Street and at South Station.

A. S. HANSON, General Passenger Agent.

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D. PATTINSON,
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 (Opposite former location.)

EXPERT REPAIR WORK
 OF ALL KINDS ON
 BICYCLES AND AUTOMOBILES.
 (Official L. A. W. Repair Shop.)

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CHANDLEE & CHANDLEE
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 906 F Street, Northwest,
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Many have made fortunes from simple inventions.

The Thorndike

Boylston St. and Park Square,

On the border of the most famous Public Garden in America. BOSTON.

A. DAMON. J. L. DAMON. J. L. DAMON, Jr.



Via Rockford, Freeport, Dubuque, Independence, Waterloo, Webster City, Port Dodge, Rockwell City, Denison and Council Bluffs.

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Buffet-library-smoking cars, sleeping cars, free reclining chair cars, dining cars. Tickets of agents of I. C. R. R. and connecting lines. A. H. HANSON, G. P. A., Chicago.

BOSTON & MAINE R.R.

LOWEST RATES
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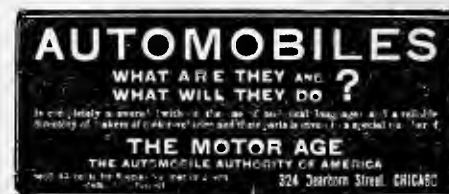
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and all points West, Northwest, Southwest.

Pullman Parlor or Sleeping Cars on all Through trains.

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D. J. FLANDERS, Gen'l Pass. & Ticket Agt.
BOSTON.



The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., May 16, 1901.

No. 7

GUARANTEE CANCELLED

In Exchange for Cash, the A. B. C. Consents to Annulment of an Agreement.

According to the statement accompanying the application of the Rubber Goods Mfg. Co., which resulted in the recognition of that company's securities by the New York Stock Exchange, the guarantees given to the American Bicycle Co. have been cancelled by the payment of \$120,000.

The guarantee applied to the agreement of the Rubber Goods Co. to redeem at par the 11,500 shares of the preferred stock, and to guarantee 4 per cent annually for five years on the 23,000 shares of common, which the American Bicycle Co. took in part payment for the sale of its tire factories to the Rubber Goods Mfg. Co. In August last, it will be recalled, the American Bicycle Co. offered these shares to its stockholders.

According to the statement of one of the directors of the Rubber Goods Co., after deducting the preferred stock dividend paid on March 15 and one payable June 15, and the common stock dividend paid April 15, and also including the \$100,000 paid to the American Bicycle Co., the surplus of the company would be considerably over \$1,500,000 as of July 1. The surplus of the company on February 1 is given at \$1,485,847.14. The net sales of companies controlled by the Rubber Goods Mfg. Co. for the year ending December 31 last amounted to the sum of \$13,956,561.36.

The condensed balance sheet as of date February 1, 1901, shows:

ASSETS.	
Cash	\$425,746
Bills and accounts receivable...	45,585
Net earnings from acquisition to Dec. 31, 1900	\$3,218,018
Less amount received to date.....	1,946,234--
Investments	25,141,149
Total	\$26,884,264
LIABILITIES.	
Deposits of companies.....	\$405,317
Preferred stock.....	\$8,051,400
Common stock.....	16,941,700--
Surplus	1,485,847
Total	\$26,884,264

Since February 1 the company has paid a dividend of 1 $\frac{3}{4}$ per cent on its preferred stock, amounting to \$140,899.50, and a dividend of 1 per cent on its common stock, amounting to \$169,417.

The authorized capital of the company is \$50,000,000, equally divided into 7 per cent cumulative preferred stock and common stock, the amounts issued being as given above.

Important Patent Invalid.

What just missed being a case of considerable importance to the trade was decided in Minneapolis, Minn., last week. Had both the claims made been granted, all makers using separators in cycle bearings would have been affected. The principal claim was disallowed, however.

In the United States Circuit Court for the District of Minnesota, Judge Lochren sitting, George J. S. Collins, of Minneapolis, brought suit against A. N. Anderson, agent for H. A. Lozier & Co., now representing the American Bicycle Co., the former concern's successor, for the infringement of two patents held by him. The first, No. 585,509, granted July 6, 1897, claimed to be a foundation patent on ball separators, while patent No. 595,696, granted December 21, 1897, covered certain features of the caging device once used in the Burwell bearings as fitted to Cleveland cycles.

The first patent was thrown out, on the ground of its having been anticipated, but the second one was held to be valid. According to Attorney A. M. Austin, of the firm of Redding, Kiddle & Greeley, representing the defendants, Collins's victory means nothing, as this particular feature of the Burwell bearings has long been discarded. However, Austin states, an appeal from the decision will be taken.

Sanger Publishes his Schedule.

The Sanger Handle Bar and Plating Co., of Milwaukee, Wis., which recently filed a petition in bankruptcy, has lodged a schedule setting forth its condition. The liabilities amount to \$41,612.92—this amount including \$26,000 of indebtedness claimed to be due the Sanger family—and the assets to \$18,892.87.

CHENEY RESPONSIBLE

His Interlineation of a Maumee Note Causes an odd Situation and Result.

From the viewpoint of his fellow directors in the defunct Maumee Cycle Co., of Toledo, O., it was a lucky thing when Colonel Cheney balked at making an unreserved indorsement of a note which the concern was about to float.

As a result of this overcaution Colonel Cheney is adjudged liable for his proportion of the note, the other four directors are released from any obligation whatever, and the bank which discounted the note in spite of its unusual indorsement is compelled to stand the bulk of the loss. All this comes about through a decision having been reached on the fifth and final trial of the case, as briefly stated in the Bicycling World last week. Fuller particulars, which are now at hand, are interesting, and show the impolicy of making unusual indorsements.

When the Maumee Cycle Co. went up in the air, figuratively speaking, the First National Bank of Toledo had a note against the directors—Cheney, Yost, Huber, Tillinghast and Jacquet—for \$10,000, it was supposed.

All but Cheney signed the note in its \$10,000 form. When Cheney looked it over he did something which the bank has always been sorry for. That \$10,000 looked too big for him, and he wrote in \$2,000 as the extent that he would be liable for.

The bank in some mysterious way took the note and filed it away without, presumably, noticing its altered form. When it came time to pay the four \$10,000 men said: "Oh, no; we don't pay. Cheney has made the note void by his interlineation. We were all supposed to be jointly liable."

Suit was brought. The jury disagreed. On a second trial the parties fought shy of a jury, and left it to the court. The judgment was that none of the defendants were liable. The Circuit Court affirmed this in regard to all except Cheney. The case was remanded back for a new trial, and the verdict finds Cheney liable for the full amount of his interlineation and \$333.33 as interest.

FRANCE FINALLY AWAKENS

Begins to Appreciate Merits of Coaster-Brakes—How Motocycles Helped.

Paris, April 26.—The free-wheel or coaster-brake bicycle hung fire for a long while after it was introduced to this country, but it seems to be becoming a very popular feature of the bicycle trade just now. It is rather strange that the French should have looked askance at the free wheel, because it is by no means a novelty to them, except in its application to ordinary bicycles, and the free wheel was a necessary equipment of the motorcycle long before the bicycle manufacturers took it up. I am not so sure that the French were not the first to adapt the free wheel to bicycle construction, for a maker was turning them out here four or five years ago, but the thing didn't catch on well enough to enable him to push the sale of his machines.

The device is now, however, coming very largely into vogue, because it is a sort of connecting link between the ordinary bicycle and the motorcycle. There are quite a large number of cyclists who are now buying free-wheel machines, so as to be able to fit a motor attachment. The fault of a good many gasoline bicycles is that one cannot always depend upon obtaining a reliable machine. The motorcycle makers are manufacturers of motors first, and have very little knowledge of cycle mechanics, and they purchase their bicycles under contract from people who will supply them at the lowest figure. Again, they usually have only one standard frame, and if you want a machine built to your specifications you have to pay pretty heavily for it. The standard size motor bicycle is quite dear enough at \$180 to \$200. The Frenchman is pretty keen, and soon saw that he could get a better bargain by purchasing his bicycle and taking it to a small manufacturer who makes a specialty of fitting motors. He thus gets a more reliable and comfortable machine at smaller cost.

There are a lot of small makers who are doing business in this way. A man who is thoroughly up in motor matters is able to give full satisfaction to his customers, and while he does a good trade in building motorcycles he finds a still greater source of profit in carrying out repairs to motor machines. It is astonishing how much work will come to the man who is a specialist in doctoring motorcycles. The more ignorant an owner is of the mechanism of his machine the more trouble he has with it, and as soon as anything goes wrong with the motorcycle it is promptly sent off to the small maker. While writing this I have in view a shop on the other side of the street which is rarely without two or three machines standing outside waiting to be attended to—bicycles, tri-cycles and voiturettes that have become stranded through motor troubles. The maker has a

terse explanation for this state of things; he says it is bad workmanship. And indeed it is easy to understand the scamping that must take place in certain factories that are not properly equipped for supplying the demand for machines.

Major Taylor has been making things pretty lively for the foreigners over here, and except for a defeat the first time he turned out on a European track he has been carrying everything before him. His latest big victory was in a match with the Belgian flyer Grogna, who was not satisfied with a previous licking he got from the Major and wanted another. The Major gave it to him handsomely. How the American finds time to train I don't know, for he is spending most of his time on the railroad, travelling from Paris to Berlin, from Berlin to Brussels, and I hear that he has just entered into an engagement to race in England. He still religiously abstains from Sunday racing. No one questions Major Taylor's superiority over the European professionals, and the only hope the French have is in the ability of Jacquelin to take down the colored gentleman's number. Jacquelin is now training hard for the solemn occasion when he and Major Taylor will meet for the first time on a cycle track. The French are looking to the event as quite of a national character. French professionalism has held sway for several years, and it remains to be seen whether this country will have to pass the mantle over to America.

Mulheran was on Hand.

But for the shrewdness and quick action of an office boy last week, a couple of Wilmington, Del., dealers would have been made the victims of a smooth confidence man. As a result of the boy's good work, however, this man is now languishing behind the bars in the Delaware metropolis.

The man, who gave the name of John Adams, appeared at the office of the Sunday Star, and, after making some inquiries about printing, asked for a blank check on a local bank. He was accommodated by the office boy, Daniel Mulheran, and then left the office. The boy became suspicious, and reported the matter. Consequently, when a telephone message was received the next day from V. R. Pyle, a cycle dealer, asking when the proprietor's nephew would call for his new bicycle, an investigation was made.

It was found that Adams had called on Pyle, purchased a bicycle and presented a check in payment, the latter being made out in excess of the price of the bicycle. There not being sufficient change in the drawer, the check could not be cashed, and Adams left in a huff. He never returned, of course.

The same afternoon Mulheran was sent to another dealer, V. V. Harrison, on an errand, and was surprised to find Adams there, just concluding the purchase of another bicycle. Mulheran slipped out and telephoned to the police, and Adams was arrested. He had the check in his pocket.

PRINCIPLE AT STAKE

Fight Over Guarantee on Second-hand Machine Again in Court.

For the fourth time the new famous case of Williamson versus the Rover Cycle Co. of Coventry has come up in the Irish courts. The action is for damages for the breaking of the front fork of a Rover second-hand bicycle, and is one of considerable importance to the British trade, on whom the legal responsibility for breakages has always borne heavily.

The plaintiff bought a bicycle from the defendant's agent at Belfast, and he rode it all the succeeding summer. In the autumn he went to work at Leeds, and before leaving took the machine to pieces and left it in Belfast. In the following spring he sent for the bicycle over to Leeds, and one evening in April was riding it and it broke down, precipitating plaintiff into the road; he was seriously injured.

He brought an action in Dublin against the defendant company, and they pleaded that they had done all that their guarantee under which the machine was sold promised. A jury awarded the plaintiff £120 damages. Defendants appealed. The case was argued in the Queen's Bench Division of Ireland early last year, and the court set aside the verdict of the jury, Chief Baron Palles and Mr. Justice Kenny being a majority and Mr. Justice Madden dissenting.

The case has excited a good deal of interest in the cycle trade and among riders, the question being how far manufacturers of machines are liable for breakdowns occurring months after a bicycle has been sold, and for the public the point is whether, having purchased, they can claim damages in case of mishap and injury.

At the conclusion of the hearing the Lord Chancellor said judgment would be given later.

California Dealers Early Closing.

The early closing movement has reached the Coast, affecting cycle dealers along with other retail merchants. On May 1 an agreement made by the Los Angeles (Cal.) dealers went into effect, and the stores there are being closed at 6 o'clock each evening except Saturday. The following dealers and repairers have signed the agreement referred to: E. R. Braley, A. C. Herriek, E. W. Lincoln, F. B. Morton, C. J. Platt, W. E. Darracott, A. L. Ryder, O. J. Wigdal and George C. Smith.

Police Permit to Pranks.

At Buffalo, N. Y., the police have of late been very active in restraining the exuberant fancies of cyclists. One rider was arrested and fined for indulging in fancy riding on the street, another was treated similarly for getting on the wrong side, and a number were punished for riding at a pace in excess of the speed limits.

LAMP LAW AMENDED

Constant Effort Finally Results in a Compromise Measure in Connecticut.

The many efforts to repeal, amend and tinker with the Connecticut lamp law have finally resulted in the reporting of a compromise bill by the Judiciary Committee of the House.

It differs from the act of 1899 in that courts are given power to remit fines if it be shown that the light of the culprit had been extinguished by accident. It also permits lampless wheelmen and drivers to so proceed at a pace of six miles per hour, provided an audible signal be made every 500 feet. The law in full follows:

Section 1. All rubber-tired vehicles, while in use in the public streets and highways, shall show, from one hour after sunset until one hour from sunrise, a light or lights so placed as to be seen from the front, except that no lights shall be required on such vehicles between the hours of 5 o'clock in the morning and 7 o'clock in the evening. Such light or lights shall be of sufficient illuminating power to be visible at a distance of 200 feet.

Sec. 2. Any person driving or directing any such vehicle upon a public street or highway between the hours mentioned in Section 1 of this act without a light, as prescribed in said section, shall be fined not more than \$5.

Sec. 3. The court before which the accused is tried may remit the penalty provided herein whenever it may appear that the failure to provide a light as required by this act is the result of accident.

Sec. 4. Any rider or driver of such vehicle whose light has become extinguished or who is necessarily absent from his home without a light may proceed to his destination at a pace not exceeding six miles an hour, provided an audible signal is given as often as 500 feet are passed over.

Sec. 5. Any person arrested for the violation of any of the provisions of this act may tender, at the time of his arrest or at any time before the trial, either \$5 or his rubber-tired vehicle as security for his appearance in court to make answer to the charge of violating the provisions of this act; and the officer making the arrest shall accept the security which the rider may offer as aforesaid for his appearance before the most convenient court or magistrate, to be specified by said officer at the time said money or security is received by him; and such money or security shall be forthwith delivered by such officer to such court or magistrate, or to the chief of police or head of the police department of the town or city to which said officer may belong. In case the person arrested shall fail to appear to answer to such charge at the time so specified, or at such further time to which the matter shall have been adjourned, such security shall be forfeited and such money shall be disposed of in

the same manner as fines are disposed of by such court or magistrate; and if such security be a rubber-tired vehicle it may be sold under the direction of such court or magistrate at public sale, and notice of such sale shall be posted on the public signpost in such city or town, and a copy thereof served upon the person who tendered the same, either personally or by being deposited in the postoffice, postage prepaid, addressed to such person at his last known address, at least six days before such sale, and the money received from such sale shall be disposed of in the same manner as fines collected by such court or magistrate.

Sec. 6. If the person arrested for a violation of this act presents himself for trial said money or security tendered as above shall be returned to him upon completion of the case or at any time upon the substitution of a proper bond for his appearance.

Thomas on the Run.

There is now a Thomas Auto-bi Club in Buffalo, the home of Thomas and the birthplace of the Auto-bi. The accompanying



picture shows the participants in the first run of the club—to North Tonawanda and return. The distinguished-looking, white-mustached gentleman at the head of the line is E. R. Thomas himself.

"It is reasonable to say," says the correspondent who forwarded the photograph, "that this run had the largest escort of bicyclists that ever attended a new club on its initial run. Although the run had not been widely heralded, wheelmen were apparently on the lookout for it, and 'tagged on' and followed it all the way. The enthusiasm and interest created bode well for the new form of cycling."

All of the machines used were new, and several of the riders were as new as their machines; and that they were able to ride and "keep up with the procession" is evidence that the riding of a motor bicycle is easier than is generally imagined.

Both Shows Will be Held.

All the talk of an amalgamation of the two English shows has come to naught. Entry blanks for both the Stanley and the National shows are out, and the secretaries of both associations have started in at an unusually early date to secure applications for space and to in other ways insure the success of their respective ventures.

PROTECTION OF AGENTS

How a Typewriting Concern Insures it—Where Cycle Dealers Clash.

One of the prolific sources of friction between makers and dealers arose from the inability or disinclination of the former to afford effectual protection to the latter in their allotted territory.

The best concerns, of course, made strenuous efforts to have their agreements—both the letter and the spirit—carried out. As a rule they succeeded fairly well. The chief difficulty arose from the invading by one dealer or another's territory. Severe penalties have always existed, aimed at this practice, and have usually been enforced. Frequently, however, it was difficult, almost impossible, to locate the responsibility.

It is not always easy to trace the sale to the offender. Even when this is done he is sometimes able to apparently clear his skirts, or to at least confuse the issue to such an extent that it is impossible to place his guilt beyond doubt. He may produce entries in his books to show that the sale was for cash, and that it had every indication of being a perfectly legitimate one.

A prominent typewriting firm has a very simple rule applying to this matter, and one which is said to work perfectly. Under it an agent is permitted to make a sale to any one, for shipment anywhere, provided two points are observed. The purchase must be for spot cash, and the transaction must be concluded at the agent's place of business. This done, there can be no further question or dispute about the matter.

Only These Exhibit at Pan-American.

According to the official returns, but three bicycle manufacturers have taken space at the Pan-American Exposition—the George N. Pierce Co., the National Cycle Mfg. Co. and William Hengerer & Co. Motorcycles will be exhibited by the E. R. Thomas Motor Co., the De Dion-Bouton Motorette Co. and the Stratton Motor Bicycle Co. The Goodyear Tire and Rubber Co. are the lone representatives of the tire trade, the 20th Century Mfg. Co. of the lamp industry and the Veeder Mfg. Co. the cyclometer interests. The Excelsior Machine Co. and the Steel Ball Co. are the only other concerns identified with the cycle trade that are on the official list.

Of the exhibits the Pierce, National, Hengerer, Thomas, De Dion and Veeder are the only ones in place and ready for the public.

Partners Could not Agree.

Judge Wheeler, of the New Haven (Conn.) Superior Court, last week appointed Judge James Bishop receiver of the copartnership composed of Bernard Abelson, of New York, and Mrs. Lorinda Whitman, of New Haven, doing business under the title of the New England Tricycle Co., Commerce street, New Haven. The partners cannot agree, and this method is taken to dissolve the partnership.

THOUGH there be something good there is always something better; of the better things there is always one best.

THOUGH there be things great, there are always greater things; of the great things and the greater things there is always one that is greatest—one that stands above and beyond and in front of all the others.

AND when it comes to the good, better and best—the great, greater and gaeatest in coaster brakes

can there be doubt in the mind of any man who has to do with bicycles—who knows anything about bicycles, that the one—the best and easily the greatest of them all is

THE MORROW?

We do not believe it.

New York Branch, 105-107 Chambers Street.

ECLIPSE MFG. CO., Elmira, N. Y.

\$25 REWARD

For information about Dealers using or handling
infringing TIRE FLUIDS.

WRITE FOR CONDITIONS

NEVERLEAK

IS THE ONLY FLUID THAT CAN BE LEGALLY
USED IN PNEUMATIC TIRES.

The average business man believes in decency and fair play in trade, and usually respects the rights of others. Unfortunately there are exceptions and we are looking for those exceptions. Our inspectors are out getting evidence against infringers, but as they cannot cover the ground thoroughly for some time, we make the above offer, particulars of which will be mailed on application. The following constitutes an infringement:

Any person or concern selling or using any liquid not authorized

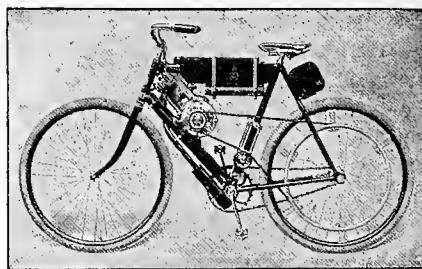


or made by us, in any pneumatic tire, infringes our patent rights, and is liable to serious trouble and expensive litigation.

This applies to any private individual, repair man or dealer, whether he injects a liquid into his own tires, into the tires of others, or makes or sells such liquid for others to use or sell. It applies to any free-flowing liquid, semi-liquid or substance capable of being converted into a liquid, no matter what such substance or liquid is made of.

BUFFALO SPECIALTY MFG. CO.,
BUFFALO, N. Y.

The Motor does the Work



THE THOMAS AUTO-BI

has become an important factor in the sales of so many bicycle dealers, and especially with those whose names are synonymous with progress, that it now has reached a stage where it is an object of interest to every dealer who gives any thought to his business.

Right now write us for our catalogue and agency.

E. R. THOMAS MOTOR COMPANY,

106 Broadway, BUFFALO, N. Y.



In which is Incorporated
"The Wheel" and the "American Cyclist."

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Change of advertisements is not guaranteed unless copy therefor is in hand on SATURDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, MAY 16, 1901.

Regain Some of the Lost Ground.

If there has been no War to put in evidence as an explanation for the refusal of the wheels of cycling trade to whirl as fast as is deemed desirable this season, there has at least been plenty of Weather to make up for it.

It must be confessed, too, that such Weather as has been the rule during our much abused spring—this time well deserved abuse—is enough to upset all calculations. No matter how well laid they may have been, or how promising at one time, no reasonable ground existed for their being fulfilled in the face of the continuous downpours which have marked the past two or three months.

Nevertheless, there have been indications that, had Old Sol shown his face with his customary frequency, a different result would have been recorded.

There has unquestionably been an increase—even a notable one—in the number of riders as compared with last year. Many

of them have braved lowering clouds and muddy roads to engage in the sport which was once their favorite. Others have been waiting, with more or less impatience, for settled weather to emulate their example.

There were even signs that increased buying would be a concomitant of this renewal of interest. Dealers everywhere, although the majority of them frankly admit that business has not been up to expectations, point to inquiries and actual sales to old customers whom they had almost despaired of retaining on their books. Such trade is doubly welcome.

Hope deferred maketh the heart sick, indeed, and the trade has indulged too often this spring in the hope that the visitation of untoward Weather had come to an end to feel entirely confident of this even now.

But such a hope is not unreasonable. If it is realized, there is still a chance to make up for some of the time lost. There is still business to be done. A vigorous campaign—even if short—can still be conducted, and with beneficial results.

There is plenty of interest in cycling, plenty of riders ready to make up for their inaction of the past year or two. Most of them have bicycles, of course. But plenty of them can be induced to purchase the new patterns if the matter is presented to them in the right way. Improved machines are wanted by them to-day scarcely less than they were half a dozen years ago.

The presentation to such riders of the features which distinguish the best of the new machines is the task now before the trade.

If it is performed intelligently and with a right good will, there is no telling how much good may be accomplished.

Fools and Their Money.

According to the old saw, the burned child dreads the fire.

This does not always hold true of the purchaser of cheap tires, however. One would naturally suppose that one apple out of the bag of "cheap and nasty" would be sufficient for the average rider, but such does not appear to be the case.

Tires remain the most expensive part of the modern bicycle. Consequently the temptation to economize is greatest with them; nevertheless, true economy dictates the purchase of good, if not the best tires procurable. It is scarcely necessary to say that a large proportion of riders take the opposite view.

An enormous quantity of tires which are scarcely worthy of the name are being turned out and find their way into the hands of riders. The majority of them, probably, are sold to replace old tires.

For \$1 to \$1.50 each these tires are sold at retail by dealers who are quite as well aware of their quality, or lack of it, as their purchasers.

To protect themselves against loss the former shield themselves behind an absolute refusal to guarantee them in any way. The purchaser is at liberty to select his own tire, and even to pump it up to see if it will hold air. Once he makes a selection, however, the responsibility is shifted to himself, and efforts to change it again fail utterly.

The dealers are even averse to cementing the tire to the rim, although they make a little profit out of this. In stretching it on the rim—for such tires run irregularly as to size—it is liable to break the canvas or spring a leak in some other way and cause unpleasantness.

For this reason it is preferred to get the tires out of the store as soon as sold. In that way all trouble is avoided.

Such tires are devoid of life, go to pieces in a short time, are difficult to repair, and are but slightly better than no tires at all.

Yet some riders continue to buy them, their tire bills each year footing up to considerably more than would have been the case had they bought good tires. Whether it is habit or an inability to make the initial outlay is an open question. But the result is the same.

Such shortsightedness may come to an end eventually. But the day does not seem to be near.

Meeting Mail-order Competition.

That the mail-order bicycle is making its baneful influence felt and is affecting the trade of the East, let this extract from a veteran dealer in upper New York bear witness:

"Unless some combination can be made against the mail-order houses, the bicycle business is in a bad way."

Although the fact is apparent, a considerable portion of the trade is closing its eyes to this cutthroat competition. The execrable weather of April and the fickleness of May have not served to raise trade spirits very high, and where poor business exists all the blame is laid on the weather. In the larger cities this may be justifiable, but in the smaller places, such as those in which the

dealer quoted resides, the mail-order bicycle is adding to any anxiety or agony that exists. The odd figures of the mail-order people have fascination for the country folk, and local dealers are feeling the effects.

It may afford temporary mental relief to poohpoo and minimize the mail-order machine, but the fact remains that the sale of 100,000 or 200,000 bicycles of the sort means nearly a million dollars placed out of the reach of the legitimate dealers. The department-store plague was not of the kind. Its ravages were fiercest when the sale of bicycles was greatest and could best be withstood, but in these days 100,000 or 200,000 is more than a drop in the bucket—it reaches to the first or second hoop on the bucket.

It is reasonable to suppose that there will always be found those who will supply the demands of the mail-order houses. There can be no such thing as closing their sources of supply. But the dealer can protect himself and serve his friends by requiring that hands be shown. The maker who to the "not made by a trust" slogan adds "and not sold to or by department stores or mail-order houses" should be quickest to catch and deserve the dealer's ear, sympathy and support.

The maker who sells bicycles to the mail-order houses at prices that permit their cut-throat quotations and then seeks the patronage of the dealer who is hurt by the mail-order bicycle is not on the same level, and does not merit the support that should go out to the manufacturer who lives for and with the legitimate agent.

When the dealer learns to be true to those who are true to him—when he begins to discriminate as he should discriminate—he will better his condition and receive the respect and consideration that are his due.

Meanwhile, to meet the mail-order bicycle he must make the term as odious as possible and keep in stock and advertise bicycles that are just as doubtful at prices just a few cents more "cut-throaty." He can obtain them without much trouble.

No Half way Measures!

Aggressive tactics have won many a hard-fought field.

There is something in the vigorous presentation of a case that appeals strongly to the average man, and wins him where negotiation would have little or no effect.

It is to be feared that the value of taking the offensive, of carrying the war into the enemy's camp and taking him off his feet

by sheer impetuosity, backed by solid and irrefutable arguments, is not well understood by the majority of salesmen.

We have been forced anew to this conclusion by listening to the talk of not a few salesmen this spring. The majority of them do not appear to realize the weapons events have placed at their disposal. They fall very far short of making the most of their case.

To begin with, enthusiasm is lacking. It is very easy to retort that it is difficult to manufacture enthusiasm; that recent events in the trade have not been conducive to the accumulation of any considerable quantity of this quality, and that consequently it is a task of some magnitude to conjure up any great amount of it.

While admitting all this, it is very obvious that no salesman can succeed by working on such lines. He must pluck up spirit, infuse life into his talk.

At the present time he has an opportunity such as seldom occurs. He does not have to draw on his imagination for talking points. Those old standbys, relegated to obscurity of late, are ready at his hand.

He has but to take the machine of two, three or four years ago and compare it with the best example of the art of cycle building to-day. Dwell on the new features, one by one, point out their far-reaching value, and draw in stirring words a picture of the pleasure derived from their use.

If this is done with spirit, aggressively and convincingly, there can be little doubt of the result.

But to adopt conventional methods, to speak of the coaster-brake or the cushion frame in much the same way that a new head lock nut or a change in the lines of the frame would be noted, is to fall very far short of this. It is to invite the auditor to accept the improvements at the valuation placed on them by the salesman.

The features referred to, and others, are new and valuable. They are sufficient in themselves to induce a rider to change his mount if brought home to him. Then why not go about it in the right way?

Many riders have heard about these things and are already favorably impressed with them. They go to the cycle store for confirmation of their predilection, and ask leading questions, expecting and even hoping that the answers will carry conviction.

All this can be accomplished. The assertive salesman, with his snappy, impetuous story of what the new features are, what they will

accomplish, how they will give a new zest to cycling—all this, delivered in an impressive and convincing way, will carry the day nearly every time.

But his fellow, who either does not believe his story or fails to impress his hearer with his sincerity, falls far short of doing so.

Chainless Makes Steady Progress.

Any one who concludes that the chainless machine has shot its bolt without hitting the target of popular favor is apt to base his supposition on insufficient premises.

If he wishes to have his eyes opened he has but to observe the cycles he meets and make a mental note of those having chainless gears. The result is likely to surprise him. It will at least convince him that there is something to be said on the other side.

Of course, it stands to reason that after all the years it has been on sale the chainless machine should be able to make a respectable showing. Each season the sales increase, and as the early machines continue to be used the aggregate must by this time have reached a fair figure. This even when the total number of cycles is considered.

But the chainless does not fulfil its early promise or bear out the claims made for it each successive season, it will be said.

Both of these statements must be admitted. The chain wheel still remains the standard, and there is not the slightest likelihood of its being displaced for a great many years to come.

Admitting the truth of this, however, it is equally certain that the chainless has neither stood still nor gone backward. If its advance has been neither very rapid nor very great, it has at least made steady progress.

The best proof of this is to be found in the increasing number of such machines observable wherever cyclists do congregate.

They are met in ones and two and threes, where but a few years ago they were entirely absent. Where a chainless machine was formerly an unusual sight it has become fairly common, and excites no surprise whatever.

Furthermore, the newer the machines the greater the proportion of chainlesses is likely to be. If a buyer wants the best he is almost certain to give the chainless consideration.

All of which is a good sign. It fosters a demand for the best, irrespective of price. Better than this no dealer or maker can desire.

MAY BE JANE DOE

Search for an A. B. C. "Indorser" Grows Warm—One Kelley Acts the Shield and Contributes Some Amusement.

While the identity and certificate of the lady herself are still shrouded in mystery, the *Bicycling World* has succeeded in arousing a champion of the dubious "Dr. Mary Easton."

"Dr. Mary," it will be recalled, is the personage who about a year ago recommended womankind to purchase the bicycles made by the American Bicycle Co.—a recommendation that was sent by the press bureau of that establishment to papers all over the country. The "doctress's" indorsement of the Trust's bicycles was more or less cleverly interlarded into what purported to be a physician's advice to womankind. The advice was so droll and at variance with common reason that an odor of "fake" permeated the whole article. Accordingly the *Bicycling World* made an effort to seek out the "doctress." The effort led first to Mr. Jim Sullivan, chief of the A. B. C. press bureau, and from Sullivan to the office of the American Queen, the head of which is one Dennis Kelley, reputed to be a close acquaintance of Mr. Sullivan. Mr. Kelley himself was absent at the time of the *Bicycling World* man's visit, and "Dr. Easton" herself was reported "at lunch." A young woman who later came into the office stated that "Dr. Easton" was seldom in New York, that she "lived out of town" and forwarded her "recommendations" by mail. No address could be obtained.

The interview left no doubt that "Dr. Mary Easton" was a myth and her indorsement of Trust bicycles a "fake."

Several weeks since, the "indorsement" was revised and again sent out by the A. B. C.'s press agent. The *Bicycling World* again challenged it, and called on the officers of the A. B. C. as men of honor to prove or disprove the "fake."

There is reason to believe that Mr. Sullivan was duly called to account, and that he in turn called on his friend Kelley to "make good" and stand behind him. Exactly what "Jim" said to "Dennis" is not known, but, whatever it was, it excited him greatly. He could scarce contain himself. But, true to the title of his publication, he calmed himself, and, standing over a stenographer, he respectfully and self-respectingly and in his most Queen-like language dictated the following logical, impressive and gentlemanly letter to the *Bicycling World*:

"On my return to my office after a month's absence I find a copy of the *Bicycle World* containing a libelous assault on one of our contributors. This is a repetition of a similar piece of nonsense perpetrated about this time a year ago, but which did not come to my notice until yesterday.

"On inquiry I find that some drunken

bum, who reeked of liquor, called at our office about a year ago to learn something about one of our contributors. He was dismissed as courteously as a well bred woman could dismiss a man of bar-room stench and low manners—subsequently it seems your publication assailed us, maliciously and untruthfully.

"This year you again endeavor to promote your purposes by a publication somewhat similar. It seems utterly absurd that a publication devoted to the interests of cycling—apparently—should attack a medical opinion which is calculated to promote the very business it is ostensibly—at least—on earth to promote. No one could have read the medical articles referred to and not have known that they were written by a medical expert.

"If it will help you any you might ask your friend Priol, or almost any one in the publishing business, about us, and you will, I guess, conclude we are all right. If you are after the bicycle people for any purpose it seems to me you ought to get at them on some legitimate ground and not on a proposition that is so transparent that 'he who runs may read.' The courts are, of course, open to us, and we could there seek redress, but we cannot spare the time to pursue people. We are too busy and life is too short for strife. Frankly, I don't think you will ever accomplish any good business purpose by arousing the antagonisms of large legitimate interests. No man who has a grain of sense will approve of unjust attacks upon either individuals or vested interests. In other words, all right thinking men reprobate attacks on character and property.

The *Bicycling World* man to whom Kelley refers in such refined terms has been connected with the paper for some ten years, and few men are better known to the trade. If he were other than a sober, capable and courteous gentleman this would not be the case. The fact will stand against the excited and empty fulminations of such men as Kelley, whose character is best reflected by his language.

If "Dr. Mary Easton" is not a myth and her "indorsement" a miserable and contemptible fraud, it should be easy to prove the fact. Kelley does not attempt to bring anything to bear to that end.

Anxious to establish the identity of a physician who loaned her name to the indorsement of all bicycles, from the highest grade to the cheapest, made by a particular concern, to the exclusion of all others, the *Bicycling World*, on receipt of the Kelley communication, wrote the American Queen as follows:

"Your letter of 10th inst. is received. Permit us to compliment and congratulate you on your excellent grasp of the (American) Queen's English as it is spoken in peculiar places. We shall reproduce it in our issue of the forthcoming week.

"Meanwhile, if you can supply us with photographs and short biographies of your Mr. Kelley and of the doctress who stated that 'young girls should not talk while awheel because it would give them congestion of the head,' we would be very pleased to make them a part of the article which we purpose publishing."

Despite the Kelley assertion that "no one could have read the medical articles referred to and not have known that they were written by a medical expert," it is difficult to believe anything of the sort. Among other

things, "Dr. Easton" advised "cold plunges" immediately after a ride, stated that failure to clean a bicycle after a ride was a sign of overexertion, and wound up with the side-splitting assertion that conversation while awheel was conducive to "congestion of the head" and detracted from the enjoyment of cycling. The Kelley ilk may imagine that such drivels promotes the interests of the bicycle, but most people will agree that it does more harm than good. The features and medical record of the "expert" who dare give such advice could scarce fail of interest.

Kelley, however, evidently does not appreciate the fact, and has apparently overcome his aversion to strife. Instead of the photographs so courteously requested by the *Bicycling World*, he forwarded this charming and bugabooish missive:

"I have asked my attorneys, the Messrs. Einstein and Townsend, to attend to your recent communication. You will no doubt hear from them at once."

Neither Mr. Einstein nor Mr. Townsend has been heard from. If they are, the world will learn more of "Dr. Easton" and of Kelley and Kelley methods than it now knows.

There are some papers and people that apparently hold that "fakery" is a part of journalism. To get advertising they do not hesitate to fake testimonials and create "indorsement" of anything, from pins to bicycles, or from shoestrings to shoelaces. The *Bicycling World* is not one of them, and whether "vested interests" or "persons and property" are involved it will expose the fraud and rout out the fakir whenever possible. The trade or institution that requires the aid of "fakery" is in a bad way and rests on an unstable foundation.

Flour City Dealers are Satisfied.

At the monthly meeting of the Minneapolis Cycle Dealers' Association, held recently with a large attendance, general satisfaction was expressed with the season's business, past and prospective.

An effort will be made to get every legitimate dealer in Minneapolis within the folds of the organization, there being at present a number of outsiders. The repairmen are very outspoken against the "backyard" repair shops, which they claim are conducted by persons who know nothing about mechanics, and who are ruining the trade and prices of the skilled workmen.

What Selbach Claims.

At Cincinnati, O., recently, Oscar C. Selbach, former European agent for the Miami Cycle & Mfg. Co., of Miami, O., pursuant to a motion sustained requiring plaintiff to separately state his causes, has filed an amended petition setting up the services he performed as European agent for defendant upon four causes of action: First, \$24,500, with interest from January 1, 1900; second, \$20,000, with interest from January 1, 1900; third, \$1,500, with interest from May 1, 1899, and, fourth, \$5,000, with interest from January 1, 1900.

A NEW MODEL.

. . . The . . .

20th Century Racer

has been added to the

Wolff-American, Regal and Holland

lines of Bicycles.

In addition to the regular racer models with 1 1/8 in. tubing, the 20th Century model comes as a crowning glory to these superb lines.

Specifications in brief:—Frame 20 in. of 1-inch tubing; wheel base 41 in., tread 4 3/16 in., tires Palmer, chain 1/8 in. nickel steel, sprockets 21 or 23 front, 7 or 8 tooth rear; finish, Wolff-American, black or **translucent ruby over nickel**; Regal, orange, with carmine head and seat mast; Holland, white, with carmine head and seat mast; weight, with racing equipment, 19 1/4 lbs.

LIST PRICE \$50.

Our 20th Century Racers are the greatest business-getters of the year. We will tell you more about them on request.

STEARNS BICYCLE AGENCY, Distributors of Bicycles,

SYRACUSE, N. Y.

SETTLING SIDELINES

Most Dealers Have Solved the Problem to Their Satisfaction—Others are in Anything but a Pleasant Position.

Most problems, no matter how intricate, solve themselves if they are given sufficient time. It may be difficult to foresee the direction events will take ultimately, or even to further their progress. But the problem will be solved eventually and without fuss or flurry.

For a great many years now the future of the bicycle dealer has been a burning issue with the trade. It was long ago seen that his path was a difficult one and destined to become more and more difficult each season. But it was not clearly realized at first—as it has been since—that he must work out his own salvation. Instead it was felt that help must be extended to him and advice offered, to the end that he might find some way to overcome the obstacles constantly cropping up in his path—obstacles which increased in number and seriousness as time went by.

This solicitude was felt, this responsibility assumed, because the dealer was believed to be an essential part of the fabric reared with so much effort. Neither the maker nor the rider could get along without the dealer. He was a buffer interposed between the two, performing work that must be performed, but which no one else was qualified to take in hand. Consequently he must be maintained at almost any cost.

ATMOSPHERE IS CLEARED.

As the years passed and the exigencies of the case became more urgent the atmosphere became clarified. A better understanding of the case came into existence. While it would be too much to say that the necessity of keeping the dealer as a bulwark began to be questioned, it is at least within bounds to assert that the impossibility of accomplishing this result by outside methods began to be realized. In other words, it was perceived that little aid of a permanent character could be extended.

Even before this conclusion had been arrived at, however, the dealer had been the recipient of much well-intentioned advice. He was told that in sidelines lay his only hope of surviving, and urged to take them up while there was yet time. If such a course was not followed, he was told, disaster was almost certain.

In response to these urgings, as well as in obedience to a well-defined feeling that something must be done, most dealers turned their attention in the direction of sidelines. As their treatment of the matter, however, was generally of a kind with their handling of the bicycle business, it is not surprising that the results obtained were of an extremely varied character. They ran all the way from absolute failure to complete success.

It was, perhaps, natural that the latter should receive the smallest share of attention. The dealer who established a flourishing and profitable business in sporting goods, gramophone supplies or some other of the numerous sidelines experimented with was not apt to herald his success with blare of trumpets. He had been but too well acquainted with the evils of excessive competition to do anything of the kind. Besides, he was usually too busy to talk much.

TRIED AND FAILED.

It was just the other way with the unsuccessful dealer. When sidelines were mentioned to him he had his answer ready and was only too glad to deliver it. He knew something about the matter, he would say, having given the matter a thorough trial. It was all very well to talk of sidelines, and



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

some people might be able to do well with them. But his advice to those who contemplated taking them up was similar to that of Punch to the man about to be married, viz.: Don't.

Since the adoption of sidelines was first strenuously urged on the retail portion of the trade many matters have transpired, much history has been written. The necessity for adding some article or articles to the line of bicycles carried has ceased to be a matter of dispute. Already it may almost be said that it is too late to take the matter up. The dealer who has not already done so has permitted the opportunity to escape him.

MADE GOOD USE OF THEIR TIME.

In short, while dealers have been urged to reform their lines, and even accused of being incapable of taking such action as would avoid the disaster which seemed to be almost certain to overtake them, they have really been making better use of their time than is generally supposed.

To-day the retail trade is divided into two classes—first, those dealers who, realizing

that the bicycle business is not sufficiently profitable to stand alone, have taken or are taking steps to supplement it with something else; and, second, the dealers who are simply drifting along with the tide, half-heartedly hoping that something will turn up, but knowing that if it does not there can be but one ending. That the first class is much the larger is a statement that it is scarcely necessary to make.

Dealers of this class, conscious of the storm that has overtaken them, have made their preparations to weather it. Some of them frankly avow that when the receipts stop so must the expenditures. And they close their stores when the season ends and reopen them only when a new season has been ushered in. The others have added or are adding other lines, sometimes retaining the bicycle in the premier position, at others subordinating it to other goods except during its all too brief season.

In the cities the more important dealers are turning their attention to the motor vehicle. Frequently these are the best satisfied people encountered. The automobile business in particular requires more capital, storage and showroom facilities and patience than the average dealer possesses. But this very reason reduces the competition to somewhere near reasonable limits and makes the return commensurate with the outlay.

It is fortunate that most of the dealers who have undertaken the sale of motor vehicles have done so with expectations of the most moderate kind. A little success is all they look for at first. Consequently when one vehicle is sold they are greatly encouraged and redouble their exertions. They soon learn to appreciate that matters are moving slowly, and that one motor bicycle or other vehicle sold means more than many times that number of bicycles.

TAKING UP NEW LINES.

Other dealers take up sidelines of a less costly and bulky character. Sewing machines and typewriters are now being stocked in many stores, rivaling in popularity the talking machines, sporting goods and other specialties which once almost had the field to themselves.

As with the motor vehicles, dealers who have undertaken to sell goods of this character are satisfied to make haste slowly. Now, while the bicycle season is in full swing, the other articles come in for but a minor share of attention. They are temporarily sidetracked, waiting the time when they will be in season and the bicycles relegated to the background. Then the dealers will concentrate their energies in a new direction.

It is such dealers as these that look with comparative equanimity on the prevailing conditions in the bicycle business. All of the bicycles that can be sold will be sold, together with the sundries and other things which have always gone with them. But, that done, there will be no sitting with folded arms. There are other things to sell, and the dealer must be up and doing, or he

will lose his chance of being the one to do the selling.

Among such dealers the final disposition of the branch stores is receiving considerable attention. They wonder whether these stores will be continued indefinitely, heedless of whether they show a loss or not, this loss being charged to advertising account and looked upon as a necessary evil. Opinions are pretty evenly divided on the subject.

If these are wiped out ultimately the other dealers will, of course, benefit thereby. A welcome addition will be made to their trade, and desirable agencies will fall to their lot. For this and other reasons their departure would not be viewed as an unmixed evil.

It is undoubtedly true that the chance of making branch stores paying investments would be very much increased if sidelines were added there also. But this is an addition to the business which very few concerns carrying branch stores are willing to make. It would add to their responsibilities, additional capital would be required and more help as well. The return would be small at best—certainly not commensurate with the expenditure.

This view of the matter is illustrated by an occurrence which took place recently in a large town in one of the Eastern States. The branch of a well-known concern was about to be closed after a pretty successful career of half a dozen years or so. The manager, who had been chiefly responsible for this success, offered to purchase the business, and the transaction was soon consummated.

He continued the sale of bicycles just as heretofore. But he added a number of sidelines—golf goods, sporting goods, sewing machines, etc. They were subordinated to the bicycle, being intended only to supplement the latter.

Although it is yet too early to say how the venture will turn out, it is highly probable that it will be successful. The bicycle business is quite up to the standard of past years, when a small profit was made. In addition the sidelines are doing better every month, and there is little doubt that they will eventually become very valuable.

What has been done by so many dealers to eke out the sale of bicycles and sundries can be done by others. Furthermore, it is pretty safe to say that if it is not done but one result is possible—the unenterprising dealer will be compelled to relinquish the business altogether.

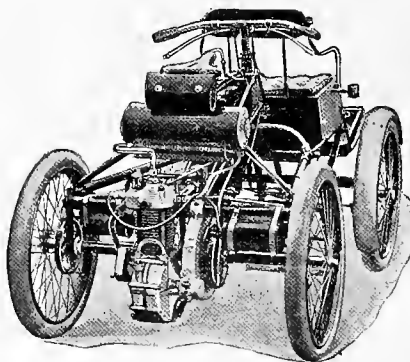
For the Protection of Inventors.

One provision of the British patent laws which makes for the protection of inventors is that permitting them to make a statutory declaration before making their inventions known. This formality costs but 40 cents, and as it is a record that on such a date such a specification was laid before certain persons for inspection it is a security to the inventor if he afterward suspects that his idea has leaked out and has been copied by some unscrupulous person.

De Dion's New Quad.

The accompanying illustration is that of the 1901 De Dion quadricycle, as is now being turned out in this country by the De Dion-Bouton Motorette Co., of Brooklyn, N. Y. It is fitted with a water-cooled motor of $2\frac{3}{4}$ horsepower and the new free-clutch mechanism.

The free-clutch device is a feature of much value. In starting a quad so equipped it is only necessary to pedal until the motor starts, the vehicle remaining stationary. When the motor is exploding properly the operator throws the friction clutch into engagement by releasing a small lever placed under the right handle bar for that purpose. The quadricycle then starts easily until the clutch catches, when it picks up to speed



just as a motorette does. The old trouble of having to pedal the great weight of the motor, the vehicle and its passengers when starting is thus overcome.

The quadricycle has several other advantages over previous models. The extra power of the water-cooled head motor is a great improvement, as it is now never required to assist the motor when negotiating steep hills. The speed of the vehicle is also considerably increased. Natural circulation is depended on, no circulating pump being required. The radiating coil is located below the water tank, and it is seldom required to change the cooling water or add to it, owing to the efficiency of the coil. A vaporizer quite similar to the 1901 motorette vaporizer is fitted to this quad. A better mixture is assured, and the power of the motor thus enhanced.

The Price of Crest Plugs.

The demand for the Crest indestructible sparking plug has become such that its makers, the Crest Mfg. Co., Cambridgeport, Mass., have put in special machinery for its manufacture. The result has been an improvement in quality and a reduction in price. The plug now sells at \$1.25 the world over, for, be it known, the Crest people have conducted a determined campaign abroad and amassed a considerable export trade. The plug is being used on most of the motor tandems in use in this country—the hardest kind of service, as in such speed work neither plug nor motor has any rest. From the price named there is a liberal discount when quantities are ordered.

What About the Mechanic of the Future?

While cordially admitting that more skillful and efficient operatives than those to be found in American shops and factories are hardly to be desired, the Electrical Review declares that the conditions under which these mechanics were produced no longer exist and that the class is threatened with nothing less than extinction.

The typical American mechanic of the present day, the writer of the article says, learned his trade under the apprentice system, which gave him direct instruction in the shops, and with this was combined free education and the payment of a sufficient wage to enable the laboring man to enjoy the benefits of culture and recreation elsewhere denied to him. But now the apprentice system is practically dead, and the only substitute for it is the school of technology.

This graduates young men with no small amount of desirable knowledge, but without the experience wanted in the shops, and it is becoming a serious question where this experience is to be obtained. With proper opportunity the graduate of the technical schools would in a few years become a mechanic of the best sort, but the opportunity has been destroyed, curiously enough, by the very efforts that have been made both by employers and employees to better the situation of the latter.

In opposing the policy of employing apprentices, asserts the Electrical Review, the labor unions have not looked far into the future, but have struck a fatal blow at the industries upon which the descendants of their members must live. We have only to look across the Atlantic at England to see the condition here referred to in a little further stage of development.

When the Thread Strips.

One job that repairers are frequently called on to do is to put to rights the havoc created by a stripped pedal pin. If the trouble is entirely with the pin there is not much difficulty, for a new pin will make everything right. But frequently the thread on the crank end will be found to be stripped also, and then the task is a much more serious one.

Many repairers prefer to put in a new crank, and so tell their customers. But this is not always practicable, and in such case the only thing left to do is to fix up the old crank. A favorite method is to ream out the hole, plug it with a piece of steel and braze the latter fast. Some repairers first tap the hole with a new thread and screw the plug in it before brazing; others merely drive in the plug and braze fast, and claim to get just as good results.

The next thing is to bore out the crank end with a drill, making the hole a little smaller than the pedal pin, so that a new thread can be tapped in it. This done, the pedal pin is screwed in place; and if the job is done right it never gives any more trouble.

THE ROMANS' CHARGES

**Not Thrilling or Blood-curdling but the Kind
Dictated by Business Sense.**

As befits sensible merchants who realize that nothing is gained by trying to outdo each other in the matter of price, the dealers of Rome, N. Y., have "reasoned together," and the result is an agreement to maintain prices on repair work during the current year. The tariff as adopted follows:

TIRE LIST.

Hartford No. 80, per pair.....	\$7.50
Hartford No. 77, per pair.....	7.00
Hartford No. 70, per pair.....	6.50
Goodrich No. 999, per pair.....	7.50
Goodrich No. 10, per pair.....	6.50
Defender Special, per pair.....	7.00
Oxford, per pair.....	4.50
Morgan & Wright, double tube, per pair	6.00
Morgan & Wright, single tube, per pair.	6.50
Morgan & Wright casings, each.....	2.50
Morgan & Wright inner tube, No. 1, put in	1.50
Morgan & Wright inner tube, No. 2, put in	1.25
Morgan & Wright inner tube, No. 1....	1.00
Morgan & Wright inner tube, No. 2....	.85
G & J tires.....	List
Dunlop	List

TIRE REPAIRS.

Repairing inner tube.....	\$.50
Putting in inner tube.....	.50
Vulcanizing .....	.75
Vulcanizing and valve stem.....	1.00
Putting in new stem.....	.35
Putting in new stem and valve.....	.50
Cementing on tires, each.....	.25
One plug.....	.25
Two plugs.....	.40
One metal base valve.....	.50
One common valve.....	.25
Repairing valve.....	.10 to .25
Putting fluid in tire.....	.35

CLEANING BICYCLES.

Cleaning, external and adjusting.....	\$.50
Cleaning bearings, gents'.....	1.00
Cleaning bearings, ladies'.....	1.25

CHAIN REPAIRS.

Repairing chain.....	.15 to \$.25
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WHEEL REPAIRS.

Respeaking wheel.....	\$1.50
New rim, plain.....	1.50
New rim, plain, and spokes.....	2.00
G & J rims.....	1.75
Truing up wheel, each.....	.25 to .50
One spoke in wheel.....	.15 to .25
Hub axle to order.....	.50 to .75

GUARDS.

Dress guards, put on.....	\$.75
Dress guards, put on and laced.....	1.00
Chain guards with braces, fittings and lacing.....	.75 to 1.25
Lacing ladies' wheels.....	.50 to .75
One cotter pin crank.....	.75
One cotter pin fitted.....	.15
Straightening crank.....	.15 to .25

HANGER REPAIRS.

Crank axle to order.....	\$1.50
Brazing on sprocket.....	.50 to .75
Front sprocket to order.....	2.00
Nickelled to order.....	2.50
Rear sprocket to order.....	.75 to 1.25

ENAMELLING.

Enamelling frame and forks, plain....	\$3.00
Striping frame and forks.....	.50
Transfers .....	.50
Varnishing rims, per pair.....	.50
Enamelling rims, per pair.....	.75
Enamelling and decorating rims, per pair	1.00
Varnishing ladies' guards.....	.50

Enamelling forks, plain.....	.50
Enamelling forks and decorating.....	.75
Scraping rims if in bad condition.....	.25

FRAME REPAIRS.

New bar in frame.....	\$3.00
Two new bars in frame.....	4.00
Splicing bar.....	\$1.50 to 3.00
New head in frame.....	3.00
Outside joint hand clip.....	2.00
Entire fork stem.....	1.75
Piecing fork stem.....	1.25
One new fork side.....	1.50
Two new forks sides.....	2.00
Fork tips, each.....	.75
Two fork tips.....	1.25
New crown.....	2.00
Fork complete.....	3.00
Truing up frame.....	.50 to 1.50
Truing up forks.....	.50 to .75

NICKELLING.

Handle bars.....	\$.75
Cranks, each.....	.25
Hubs, each.....	.25
Front sprocket.....	.50
Fork crown.....	.50
Fork crown and tips.....	.75
Head parts.....	.40 to .50
Seat post.....	.25
Pedals, per pair, and cleaning.....	.75
Crank shaft and spider.....	.40

GENERAL REPAIRS.

Cementing on grips, per pair.....	\$.10
Morrow coaster-brake fitted to bicycle, with plain rim.....	6.00
Fancy rim, extra.....	.50

When Parts are Copper Plated.

For those who adhere to the time-honored practice of first plating with copper the parts that are to be nickelled, the following points given by an authority on the subject will be found to be of value:

Copper may be deposited from an acid solution with a force of less than one volt, but takes a force of from six to eight volts to deposit copper on iron from an alkaline solution. Gas must be freely given off from the article while deposition is proceeding, but the volume of gas must be reduced by reducing the E. M. F. of the current if the deposit shows a tendency to become dark and sandy. An anode of pure copper must be employed; the disused coppers from a Daniel cell will be found most suitable.

If the anode coats itself with a green crust soon after deposition commences add some liquid ammonia while stirring the solution, until the green crust dissolves and the anode works clean. If the anode becomes coated with a blue crust, add cyanide of potassium solution. By thus noting the condition of the anode, and adding ammonia or cyanide as required from time to time, the solution may be kept in working order.

It is not usual to deposit thick coats of copper from alkaline copper solutions, but to just cover the article with copper and then transfer it at once to the plating or electrotyping solution before the pure copper coat can become oxidized by the action of the air. When thick deposits of copper are required, the articles are transferred from the copper plating bath at once to an acid solution of copper sulphate, and deposition continued in this until the desired thickness of copper has been obtained.

WHYS AND WHEREFORES

Being a Plea for More Brain Work on the Part of the Workman.

Delving into the limbo of forgotten things, a writer with a mechanical turn of mind takes for his text the absence or misapplication of brains in the workmen employed in a cycle factory, and thus moralizes:

What's this? An old frame, crushed concertinalike at all four lugs. Let's examine this and learn its lesson.

It is not such an old frame after all; it has, or once had, a parallel top tube; now, however, it is crushed together and upward. Look at it carefully; you will see that it has evidently been run into a brick wall or some other immovable obstacle. The head is jumped upward and backward, and the top and bottom tubes are badly bent at the lugs, but not close to the lugs as you may see, some inch and a half away.

What does that suggest? It means that there are liners inside that frame, but they are evidently not of the right sort, or that very pronounced crumple or concertinalike ruffle would not appear at the end of each of them. Let's cut one in half. There! That is the secret of that mysterious crumpling. The liner is a serrated one, and the serrations have been put with their points toward the lugs.

That frame is a crying condemnation of the brains of the workman who made it, or else is proof positive that he did not use his brains if he had any. No eye saw, except the man who made that frame, how those liners were put in. The foreman of the shop where that frame was built had not the sense to tell his workmen the why and wherefore of the serrated liner, or else gave them credit for more brains than one of them evidently possessed, and to-day that piece of shoddy work stares at us out of the scrap heap and condemns its makers.

Its lesson is evident. Whatever work you are on use your brains to find out the why and wherefore of things which are new to you. It will save you money and disgrace. It will save your work from staring at you out of some neglected scrap heap, and crying aloud "This is what you have made."

Levers vs. Cranks for Motocycles.

The contention that levers as applied to motor bicycles would prove an advantage over cranks is combated by a motor-bicyclist of considerable experience.

"At first thought it is a taking idea that levers would afford a fixed rest for the feet," he said, in disputing it, "but a day's ride on a motor bicycle will quickly upset the idea. With levers the legs are limited to one or, at most, two positions. With cranks they may obtain as many positions as the hands of a clock obtain, and there is more rest in these changes of position than there is in the apparently finer footing that levers afford."

The Retail Record.**EMBARRASSMENTS.**

Fairfield, O.—Otto A. Wilson, filed petition in bankruptcy.

FIRES.

Milford, N. H.—J. Baker, slight loss.
Indianapolis, Ind.—Gustave Habich, West Market street, slight loss.

NEW STORES.

Onset, Mass.—J. Magoon.
McComb, Ind.—T. G. Scott.
Shortsville, N. Y.—Earl Perry.
Anamora, Ia.—Hall & Eldred.
Cornwall, Ont.—C. F. Wright.
Westerly, R. I.—Samuel Girven.
Greenfield, Ind.—Lacey & Gapin.
Presque Isle, Me.—C. L. Bullard.
Bay City, Mich.—Edgar C. Gould.
Jefferson, Ind.—Fred. Hutchinson.
Stephenson, Mich.—H. A. Longrie.
Augusta, Me.—Bachelder & Seabury.
Great Barrington, Mass.—C. E. Cross.
West Suffield, Mass.—John F. Barnett, jr.
Black River Falls, Wis.—William Robison.
Sandy Hill, N. Y.—L. E. Sexton, Main street.

Viola, Ill.—C. J. Winn and Ed. Smith, repairing.

Cornwall, N. Y.—Howard B. Johnson, repairing.

Waverly, Mass.—Ernest Harlow, Lexington street.

Long Branch, N. J.—Harry Gross, Brighton avenue.

Glens Falls, N. Y.—John Savage, Armitage Block, repairing.

Niagara Falls, N. Y.—John Fox, Main street North, repairing.

CHANGES.

Superior, Wis.—Hunter & Marticot have erected an addition to their shop.

East Hampton, N. Y.—Leroy Edwards is building an addition to his store.

Cuba, N. Y.—F. L. Hallack is building an addition, to be used as a repair shop.

Burlington, Vt.—L. G. Burnham Co., 71 Church street, closing out.

Royal Center, Ind.—Simon J. Carroll has discontinued business.

Janesville, Wis.—G. A. Lanphier, gone out of business.

Chilton, Wis.—Charles Kroessing, sold out.

Fairland, Ind. Ter.—F. M. Conner & Son, sold out.

Waterloo, Ia.—H. H. Hildebrand & Co., F. H. McCartney has sold his interest.

Duluth, Minn.—Lindgren Cycle Co. succeed Phillips & Lindgren.

Bluffton, Ind.—Rogers & Cole succeed Justus & Rogers.

Drayton, N. D.—Oesen & Skilldom succeed Thomas Devlin & Co.

Bedford, Ind.—Heitger Stone & Hdw. Co. succeed Heitger Bros.

Mt. Pleasant, Mich.—T. H. Battle Co. succeed Gruner & Battle.

Portland, Ore.—A. A. Unruth succeeds Unruth & Shannon.

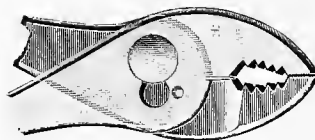
Hope, Ind.—Swain Hdw. Co. succeed L. S. Fishel & Bro.

Spring Valley, Ill.—J. F. Kimler succeeds Dalzell & Kimler.

Four Tools in One.

Like the B. & S. wrench, the B. & S. combination pliers is one of those tools that has been a standard as far back as the average man's memory runs. It has been so good so long that there has been small room for improvement; but this room was found recently, and a new patent, of date March 12 last, issued to cover it.

The tool, as will be seen, combines pliers, wrench, wire cutter and screwdriver. The improvement is mainly in the cutting device,

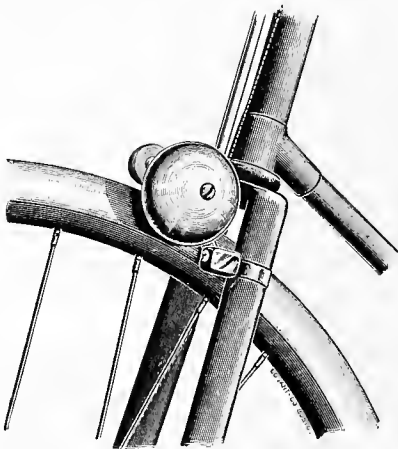


which is shown in outline by the accompanying cut. One of the important features of the tool is that by a quarter turn of the handle and sliding from one hole to the other, which is done instantly, it changes from size of gas burner to 3/4-inch pipe, and from 3-16-inch round to 1 inch round or square.

The tool is of drop-forged tool steel, finished in black or nickel, and of the quality for which its makers, the Billings & Spencer Co., Hartford, Conn., are famed.

Time-tested and Found True.

When tire bells are under consideration it is not wise to overlook the "good old Ericson." Four years of use have demonstrated its merit beyond question, and at the prices quoted by its makers, Nutter, Barnes & Co., of Boston, there is no better value on the market. The bell is a simple and effective



affair, free from rattle, and operated in the most convenient manner possible—by a small lever placed within reach of the left forefinger. With the increased use of motorcycles the need of a bell giving a longer and louder alarm becomes more apparent, and Nutter, Barnes & Co., wise in their generation, are making the most of the merits of the Ericson bell for use on those machines.

Sewing machines and typewriters are two articles that a number of dealers are carrying as sidelines. They are said to be a good investment.

Tempering and its Mysteries.

In dealing with the subject of tempering, says an authority on metallurgy, I wish to emphasize the fact that tempering to color cannot be relied on for tool work.

A tool tempered to a pale straw color may be much softer than one tempered to a blue. A very high carbon steel will require more tempering than a low carbon steel, as the first hardness is much greater, and it will require greater heat to reduce it to the same degree of hardness.

Carbon is not the only thing to be considered in tempering. If we take two samples of steel from a bar of, say, 1.25 carbon, and harden one in water and the other in oil, if both tempered to the same color the water-cooled sample will be much the harder. Further, even if both samples were hardened in water and the temperature of the water varied, or the heat at which the steel was plunged, then we must temper accordingly. In all cases the requirements of the tool must determine the temper at which the tools shall be left. For ordinary purposes where tools have to stand rough usage, and are required to work on metal such as is generally used for manufacturing purposes, it is advisable to be able to just catch the surface of the hardened steel with a file under pressure.

Three important points must be observed in tempering tools: First, we must know our steel; second, we must know that it is hard; third, we must know the use the tool is to be put to when complete. Tools should always be tempered immediately after the hardening has been accomplished. This is most important, especially in the winter months. The changes in atmospheric temperature has an expanding and contracting influence on metals, and if the steel is under immense internal pressure fracture may result. A tool may be left quite whole overnight, and the next morning it may be found broken.

Don't Like Motors on Paths.

One of the unwelcome accompaniments of cycle paths everywhere is the intrusion on them of vehicles other than bicycles. The average wheelman looks with indignation on encroachments upon his preserves, and uses every effort to have them stopped.

The Minneapolis cyclist in particular draws the line very close. In his opinion the cycle paths are for cycles of the pedal-driven variety only. Consequently the appearance even of a motor tricycle excites his ire, and war has been declared on one tricyclist who holds that the cycle paths were made for him just as much as for the bicyclist.

He claims that he has as much right to ride on the path as any bicyclist, and that he intends to do so. Some of the local cyclists say that they have informed him that they will have him arrested if he persists, and say they received for an answer the statement that he would prove in the courts if necessary that he has a right to run his machine on the paths.

Elfin
Bicycles.

The Elfin's Matchless Excellence

is everywhere known and acknowledged.

The little wheels are handsome and graceful, exceedingly strong, and capable of great speed.

But the most important features of the Elfin are the Reversible Crank Bracket and Easy Chain Adjustment—no other Juvenile Bicycle has these.

Select the

Standard
Juvenile
Bicycle
of the World

and you will select the best—for your customers and you.

Write to us direct for catalog and agency, and purchase your Bicycles either from us or our nearest Distributing Agency.

Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.

Denmark's Big Purchase.

While England's purchases last week fell considerably below its normal quota, Denmark more than made up the deficiency, the shipments to that country aggregating more than \$16,000. Sweden was second on the manifest, with purchases valued at \$9,234. Great Britain, France, Germany and Africa in the order named accounting for the bulk of the exports. The record in detail for the week, which closed May 7, follows:

Argentine Republic—1 case bicycles, \$30.
Amsterdam—8 cases bicycles, \$324.
Antwerp—6 cases bicycle material, \$125.
Abo—32 cases bicycles and parts, \$2,010.
Alexandretta—2 cases bicycles, \$27.
British possession in Africa—122 cases bicycles and parts, \$4,106.
British Guiana—16 cases bicycles and parts, \$555.
British West Indies—76 cases bicycles and material, \$1,761.
British East Indies—40 cases bicycles, \$3,249.
Copenhagen—573 cases bicycles, \$13,341; 54 cases bicycle material, \$3,157.
China—8 cases bicycles, \$510.
Danish West Indies—1 case bicycle material, \$18.
Cuba—6 cases bicycle material, \$213.
Christiania—13 cases bicycles, \$463.
Dutch Guiana—22 cases bicycles and parts, \$544.
Drontheim—1 case bicycles, \$200.
Dublin—2 cases bicycles, \$31.
Glasgow—2 cases bicycles, \$70.
Grimstadt—1 case bicycles, \$31.
Gottenburg—50 cases bicycles, \$1,005.
Genoa—61 cases bicycle material, \$2,115.
Hamburg—109 cases bicycles, \$3,233; 41 cases bicycle material, \$1,304.
Havre—59 cases bicycles, \$3,017; 31 cases bicycle material, \$2,412.
Helsingborg—1 case bicycles, \$40.
Japan—20 cases bicycles, \$618.
Corea—6 cases bicycles, \$200.
London—236 cases bicycles, \$2,975; 20 cases bicycle material, \$365.
Liverpool—16 cases bicycles, \$484; 2 cases bicycle material, \$236.
Malmo—25 cases bicycles, \$1,000.
Rotterdam—40 cases bicycles, \$905; 79 cases bicycle material, \$2,028.
Sandefjord—2 cases bicycles, \$32.
Southampton—15 cases bicycle material, \$1,614.
Santo Domingo—2 cases bicycles and material, \$17.
Stockholm—172 cases bicycles and material, \$9,234.
United States of Colombia—1 case bicycles, \$50.
Venezuela—3 cases bicycles and material, \$135.

Came in at Wrong Time.

John McClave, a former Police Commissioner of this city, and at one time engaged in the manufacture of the Colonial bicycle, died last week. He entered the cycle field just when the boom was at its height, and soon became very much entangled in consequence. His failure followed in a short time.

PUT IT DOWN
IN

Black and White

There were never
made
better bells
than

BEVIN BELLS



Their fame does not rest wholly
in the fact that we've been
making bells since 1832.

OUR PROCESSES

have kept pace with the march of
progress and

OUR PRICES—

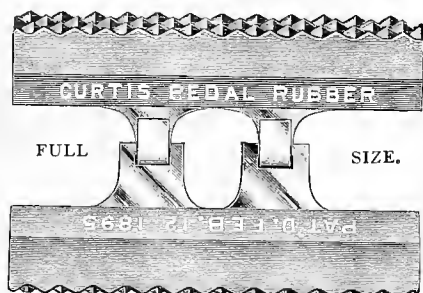
well, they must be known to be appreciated. Do you know them? If not, the fact that Bevin bells are proving the best sellers of the year should suggest that our catalog and quotations are worth writing for.

BEVIN BROS. MFG. CO.,

East Hampton, Conn.

ADJUSTABLE PEDAL RUBBER

NO. 3.



NO SCREWS OR NUTS.

EIGHT PIECES TO A SET.

Sent Postpaid on Receipt of 25 Cents.

REED & CURTIS, WORCESTER, MASS.

ASK YOUR DEALER FOR THEM.

Changes in Rubber Compounding.

It is beginning to be understood that in the compounding of rubber for use in tires is found the secret of success. New conditions require new methods, and it stands to reason that those concerns which have given the subject the most attention will get the best results.

The zeal displayed in the collection and cultivation of rubber during the last few years has been the means of bringing upon the market a number of new sorts that have received only a slight testing, and although the outward appearance may be very similar to other known sorts, manufacturers should be careful to ascertain that there are no ingredients or properties contained therein which will have a deleterious effect upon the resulting mass at any time during or after the manufacture.

New processes of collection and curing are constantly being originated, and it is quite possible that one of these processes may entail the admixture of some material that may bring havoc upon the other components in the mixing, or may have a totally different result from that which has hitherto been the recognized one, and the manufacturer cannot be too careful in dealing with unknown and untried commodities. New companies are springing up in all directions for the exploitation of crude rubber, and any one of them may have some special way of preparing their rubber for the market, which may come to the manufacturer with all the appearance of a rubber that he knows well, but really is very different.

Don't try Mrs. Nation's Hatchet on Them— Just a Hook.

Gentle spring, like the old saw "Beautiful Snow," rather "jars" you, and you feel like saying "Back Up." But then, if you are a fisherman, the springlike weather gives you that "itchy" feeling which every follower of "Walton" has more than once experienced.

An up-country editor, who is evidently one of "them fellers," soliloquizes thusly:—"The pleasurable out-of-door life which spring will soon make possible brings different anticipations of enjoyment to all. There is no end to the many means of pleasure which comes with warmer weather, and everyone has a favorite, which he or she looks forward to impatiently. But, above all, it brings the fishing season. Tackle will soon be overhauled, the old coat and boots taken from their winter's resting place, and the first trip laid out. All out-of-door sports have their devotees and merits, but none can approach the day out on the brook or pond, in the opinion of the boys old and young. The right kind of a day, an old suit of clothes, the necessary tackle, a cold lunch such as you couldn't eat in a week if at home, a pipe and tobacco to keep off the insects, and then the brook! The fish may bite well or they may seem slow, but noon comes before you know it, and in some quiet glen the lunch is produced and devoured with an appetite such as hasn't been felt for many a day. Then, when the last crumb is gone, the pipe is loaded, a new start is made. It is a busy, happy day, and not until the sun casts long shadows do we think of home. The story which must be told is made up on the way, and is all ready for the first jeering enquirer. The net result is a day well spent with dear old Mother Nature, sunburned hands and neck, a tired feeling which brings sound, healthy sleep, and—possibly—a few fish. But it don't much matter about the fish. We have been fishing, anyway, and had 'an awfully good time.'"

And for that "awfully good time" Northern New England is the place. There are fishing places everywhere, and the pamphlet Fishing and Hunting, issued by the General Passenger Department, Boston & Maine Railroad, Boston, tells you how, when, and where to go fishing. Send a two-cent stamp for it.

Summer Homes.

In the Lake Country of Northern Illinois, Wisconsin, Minnesota and the Upper Peninsula of Michigan, on the line of the Chicago, Milwaukee & St. Paul Railway are hundreds of most charming Summer resorts. Among the list are: Fox Lake, Delavan Lake, Lake Geneva, The Lauderdale Lakes, Waukesha, Oconomowoc, Pahnnya, The Dells at Kilbourn, Elkhart Lake and Madison, Minocqua, Star Lake, Frontenac, White Bear, Minnetonka, Marquette, Spirit Lake, Okoboji, Big Stone Lake, etc., etc.

For illustrated booklets "Summer Homes for 1901," and "In the Lake Country," send address with six cents in postage to F. A. Miller, General Passenger Agent, Chicago, Milwaukee & St. Paul Railway, Chicago, Ill.

FOR

18 YEARS

25c.



10c.



10c.



7c.



we have made a specialty of the manufacture of OILERS. We make a careful study of every detail and are constantly improving our oilers in every way possible. We make oilers for practically the entire trade, and are confident the QUALITY of our goods cannot be equaled at the price. Only the best quality of elastic metal is used. The washers are of specially selected (not scrap) leather. The threads are well made and tight, not stamped on body of oiler. The soldering is tested under hydraulic pressure, etc., etc. Every oiler made by us bears our name. Beware of cheap imitations. A rider's appreciation of a first-class oiler in his equipment is more than worth the slight extra cost.

CUSHMAN & DENISON, Mfrs.,

240-242 W. 23d Street,

NEW YORK.

Sheet Steel Bicycle Parts.

All Kinds of Metal
Stamping

THE CROSBY COMPANY, Buffalo, N.Y.

WOLFF-AMERICAN BICYCLES.

STEARNS BICYCLE AGENCY, - Syracuse, N. Y.

OUR
CRANK
HANGER
DOES
IT.The
RacvleDOES
WHAT?
MAKES
IT RUN
EASY.

ECLIPSE BICYCLES

Better than ever.

Good Agents Always Wanted.

SEYMOUR MFG. CO.

99 CHAMBERS ST., NEW YORK.

COMFORT

with

SPEED

is the

CUSHION FRAME

Motto.

The **CUSHION FRAME** is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold **WITHOUT IN THE LEAST DETRACTING** from the **SPEED** or **POWER** of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy, "get there" riders who at first "scoffed" the idea of **COMFORT** being combined with "speed and power" in a bicycle.

HYGIENIC WHEEL CO.,

220 Broadway New York.

Owners of the Cushion Frame Patents.



If you are looking for the best **DRY BATTERY** on the market, buy the **DOW**, and accept no other. For catalogues and price list send to the **DOW PORTABLE ELECTRIC CO.** Offices: 218 Tremont St., Boston, Mass.; 1135 Broadway, New York, N. Y.; Lippincott Bldg., 12th and Filbert Sts., Philadelphia, Pa. 160 Washington St., Chicago, Ill.

The Week's Patents.

673,439. Chainless Gearing for Cycles. Josef Marzion, Mocker, Germany. Filed March 20, 1900. Serial No. 9,446. (No model.)

Claim.—In a drive mechanism for bicycles, the combination with the rear wheel and axle thereof and gearing interposed between the axle and hub of toothed wheels fixed to the axle, one wall of each tooth of said wheels extending at a sharp angle and the other wall at a slight angle and rounded, the pedal levers having hubs, detents guided in the hubs having wedge portions, corresponding wedge portions in the hub coacting with the wedge portions of the detent and springs for normally pressing said detents inwardly, substantially as described.

673,661. Cycle Frame. William W. Reid, Edinburgh, Scotland. Filed Dec. 4, 1899. Serial No. 739,126. (No model.)

Claim.—1. The combination of the angular frame, consisting of tubes rigidly braced and connected at their front and rear ends, carrying at back suitable bearings for the rear wheel and at front a bearing for the front wheel fork; and the independent rigid triangular frame carrying the saddle post, steering bar and pedal cranks; links, connecting the rigid frame with the rigid frame while permitting relative vertical movement between them; springs sustaining the frame elastically with reference to the frame; and flexible link connecting the steering post with the front wheel fork, while permitting relative vertical movement, substantially as described.

673,845. Vehical Wheel. Alexander Pinover, New York, N. Y., assignor to Lester Cohn, Mortimer Schleestein and Jeanette Pinover, same place. Filed March 23, 1900. Serial No. 9,871. (No model.)

Claim.—In a vehicle wheel, the combination of a sectional hub, each section being provided with a flange by means of which the sections are detachably connected together, a ring seated in both of said sections and beneath the flanges, recesses formed in said flanges, which, when the flanges are secured together, form sockets for the reception of spokes; a rim, and spokes intermediate the hub and rim, said spokes being oval in cross sections for a portion of their length and where they fit in the said sockets.

Why Dooley Spends so Much.

So far from denying that he is living at the rate of \$75,000 a year, Bankrupt Hooley admits it and says that he is putting on such a "front" for the sole purpose of recouping himself for his former losses so that he can pay his creditors. In no other way could he secure the confidence of investors or have the opportunity to transfer their money to the pockets of his creditors—and himself.

At a meeting of Hooley's creditors held a short time ago it was stated by the trustee that he had in hand enough to pay about sixpence in the pound—a little more than one cent on the dollar. He added that he expected to realize enough to pay a further dividend of one and one-half to two shillings in the pound.

Where Hiring Pays.

It is related as a fact that on a recent fine Saturday a dealer in a Scotch town had out on hire no fewer than 430 machines. With the exception of two, all were returned in good condition.

Why Buy New Jersey Mud

mixed with Sulphur and
baked on to Fabric, when
for about the same price
you can buy really High
Grade Tires?

No. 66 Fisk just one-half factory price, and Kangaroo one-half price.

Write for prices before
they are closed out.

BOSTON CYCLE AND SUNDRY CO.,

J. M. Linscott, Manager,

7 HANOVER ST.,

BOSTON, MASS.

CALLS' Racing Suit and Shoes

The old reliable racing outfits. I have furnished all the crack racers with their outfits. Why not you?

Cotton 1-4 Sleeve Shirt and Knee Tight, plain	\$.50
" " " " " fancy	.75
Worsted 1-4 Sleeve Shirt and Knee Tight, plain	1.50
" " " " " fancy	\$2.75 to 10.00
Calls' Racing Shoes Strong and Durable,	- - 1.50

Send for Catalogue.

**S. B. CALL, Massasoit Block,
Springfield, Mass.**

L. R. HALL
Enameling and Nickeling Co.
ENAMELING, NICKEL-PLATING
and VULCANIZING for the trade.

Carriage Tires **4 PORTLAND STREET**
 Our Specialty. **BOSTON.**

FAST TRAINS

Chicago & North-Western Ry.

The Overland Limited.

California in 3 days

The Colorado Special

One night to Denver

The Chicago-Portland Special

Oregon and Washington in 3 days

The North-Western Limited

*Electric Lighted—Chicago,
St. Paul and Minneapolis*

Duluth and St. Paul Fast Mail

Fast train to head of lakes

The Peninsula Express

*Fast time to Marquette
and Copper Country*

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Irish Trade is

THE IRISH CYCLIST

Specimen copy and advertising rates on
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R. J. MECREDY & SON, Ltd., Proprietors,
49 Middle Abbey St., DUBLIN.

All American wheelmen who desire to keep themselves posted upon matters concerning the cycle in Europe, its trade, mechanics, and sport, should subscribe to

THE CYCLIST

AND BICYCLING AND TRICYCLING TRADES REVIEW.

The only recognized authority of English trade and manufacture. Sent post free to any part of America for one year, \$3.25. American manufacturers having novelties in machines or sun kites to introduce should advertise in

THE CYCLIST.

Terms on application to

ILIFFE SONS & STURMEY, Ltd.,
19 Hertford Street, Coventry, England.

Members of the American Trade visiting England are invited to call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street, Ludgate Circus, London, E. C.

ANY DEALER

CAN
PUT
A

C. C.

ON
YOUR
HUB.

It is not necessary to buy a new hub in order to get the best Coaster on the market. The C. C. Brake has been thoroughly tested and is fully guaranteed. Booklet free. Address CANFIELD BRAKE CO., CORNING, N. Y.



Through Train and Car Service in
effect April 29, 1900.

TWO FAST TRAINS

	"Chicago" Special Via Lake Shore.	"North Shore" Special Via Mich. Cen.
Lv. Boston	10.45 A.M.	2.00 P.M.
Due Albany	4.10 P.M.	7.35 "
" Syracuse	7.55 "	11.40 "
" Rochester	9.40 "	1.30 "
" Buffalo	11.40 "	
" Toledo	5.55 A.M.	
" Detroit		8.15 "
" Chicago	11.50 "	4.00 P.M.

The Finest Pullman Cars will be run on these trains. Tickets and accommodations in sleeping cars for sale at City Office, 366 Washington Street and at South Station.

A. S. HANSON, General Passenger Agent.

GOOD WORK GUARANTEED.

D. PATTINSON,
 rear 48 Stanhope St., Boston.
 (Opposite former location.)

EXPERT REPAIR WORK
 OF ALL KINDS ON
BICYCLES AND AUTOMOBILES.
 (Official L. A. W. Repair Shop.)

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Our fee returned if we fail. Particulars and our book "How to Secure a Patent" sent free. Patents secured through us are advertised for sale at our expense. Send sketch and description of your invention and we will tell you free whether or not it is patentable.

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Many have made fortunes from simple inventions.

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Boylston St. and Park Square,

On the border of the most famous **BOSTON.**
 Public Garden in America.

G. A. DAMON. J. L. DAMON. J. L. DAMON, Jr.



Via Rockford, Freeport, Dubuque, Independence, Waterloo, Webster City, Fort Dodge, Rockwell City, Denison and Council Bluffs.

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Buffet-library-smoking cars, sleeping cars, free reclining chair cars, dining cars. Tickets of agents of I. C. R. R. and connecting lines. A. H. HANSON, G. P. A., Chicago.

BOSTON & MAINE R.R.

LOWEST RATES
FAST TRAIN SERVICE

BETWEEN

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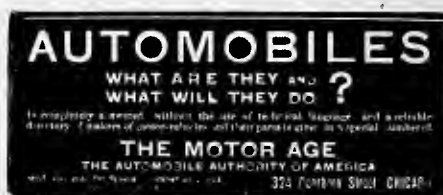
**St. Louis, St. Paul,
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and all points West, Northwest, Southwest.

Pullman Parlor or Sleeping Cars on all Through trains.

For tickets and information apply at any principal ticket office of the company.

D. J. FLANDERS, Gen'l Pass. & Ticket Agt.
BOSTON.



The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., May 23, 1901.

No. 8

RACK CRUSADE RENEWED?

Utica Finds Rackman Calkins in a new but Somewhat Uncertain Guise.

What appears to be an old friend, or foe, with a new face has been heard from. The celebrated Syracuse bicycle rack cases have again come into public notice. This time the Syracuse Bicycle Rack Co. figures in the matter, upon it, seemingly, having descended the mantle of the famous Calkins.

Nothing having been heard of these suits for some time, the Utica (N. Y.) association which had been formed to fight them came to the conclusion that the money which had been collected for this purpose might as well be returned to the subscribers. This money, amounting to a considerable sum, was in possession of Joseph Coupe, a local bicycle dealer, who was treasurer of the association.

A few days ago Coupe, desiring to straighten up the matter, and thinking that the talk of the attorneys was a bluff, wrote to the subscribers to the pool telling them to come and get their money. Several did so, and then Coupe received a letter from the West End Brewing Co. to the effect that suit had been brought against that concern by the Syracuse Bicycle Rack Co. Coupe gave out no more money, but will hold it to await developments. The West End Brewing Co. was one of the largest offenders in Utica, according to the Syracuse company. It put out racks in front of many saloons for advertising purposes.

Frank X. Matt, of the brewing company, when seen, said:

"We were notified of the suit along about the holidays. We immediately retained Matteson & De Angelis, and they put in an answer to the complaint. That is all I know about it. I haven't heard anything of it since, but I imagine it is still pending. I believe there is no case at all except a case of bunco game. The racks that these men claim to have a patent on were out long before they ever pretended to secure their patent."

It may be remembered that the merchants of Utica, N. Y., were the first to combine for the purpose of offering a vigorous resistance to the exactions of Calkins. The lat-

ter, through his attorneys, Hay & Parsons, who appear to like cycle litigation, sought to compel all users of the inverted T-shaped wooden cycle rack in general use to pay him royalty for their use.

Had the amount of this royalty been put at a reasonable figure it is probable that it would have been paid by almost every one, this course being taken in preference to standing a lawsuit. By fixing the amount at \$5 per rack, however, the complainant practically ruined his case. Such a figure made resistance almost compulsory, so many racks were already in use. After a great deal of talk, therefore, the lead of the Utica protestants was generally followed. Merchants in the various cities banded themselves together for mutual protection.

So complete has been the silence preserved by Calkins's attorneys since last December, when the patents expired, that it was generally supposed that the last had been heard of them. Even now it is not known definitely that the contrary is the case, although the fact that the Syracuse Rack Co. now figures in the matter and that the suit against the West End Brewing Co. was begun just prior to the first of the year would lend some countenance to that belief.

The next move in the matter will be awaited with interest. A considerable number of merchants in towns throughout New York, Pennsylvania, New Jersey and other States were served with notice of legal proceedings last year.

Making Good Their Threats.

The Buffalo Specialty Mfg. Co. are making good their threat to proceed against those whom they deem infringers of the Never-leak patents.

They write that they have instituted proceedings in the United States Circuit Court against Frank E. Norton, of Syracuse, N. Y., and Bump Bros., of Binghamton. Norton, they claim, was making and selling a preparation styled Norton's Tire Fluid, while the Bumps are alleged to have been making a fluid of their own for use in their repair shop.

Similar proceedings are promised all along the line, the Neverleak people saying that they have delayed action awaiting the result of the litigation which gave them such a sweeping decision by default.

OLD HOUSE IN STRAITS

Grand Rapids's Veteran Retailers Make Over Their Assets to a Trustee.

Considerable regret will undoubtedly be felt by many in the trade at the news that Perkins & Richmond, of Grand Rapids, Mich., are in trouble.

The firm last week, through its attorney, Judge Judkins, filed with the County Clerk a trust mortgage covering the firm's assets, including its stock of bicycles, cameras and photographic goods, sporting goods and bicycle sundries, its bills receivable and book accounts. The mortgage is given to Arthur C. Torrey as trustee for all the creditors. Of these, who number about 125, less than a half dozen are local creditors. The amounts in which the local creditors are involved—among them being the Grand Rapids Bicycle Grip Co.—are for the most part small.

The terms of the mortgage provide that the expenses shall first be paid and that there shall then be a pro rata division of the assets among the creditors. The liabilities amount to about \$30,000, and the assets are estimated at between \$15,000 and \$20,000.

The failure is assigned to the fact that business in the photographic and sporting goods lines has fallen off so heavily in the last two or three years. The firm arrived at a condition where it was impossible to continue the business. A suit is now pending in the Supreme Court, commenced recently by the Indiana National Bank, and two suits brought by the Goodrich company are pending in Justice Court, but these will be discontinued.

The largest creditors are the Eastman Kodak Co., \$1,425; American Bicycle Co., \$5,148; B. F. Goodrich Co., \$601; Morgan & Wright, \$621; Hammer Dry Plate Co., \$623; National Cycle Co., \$570, and a number of others.

The firm was one of long standing and much respected. In the pre-Trust days it handled Rambler and Clipper bicycles on a considerable scale.

It is stated that the American Automobile Co., Rockaway, N. J., expects soon to begin the manufacture of bicycles in addition to its line of automobiles.

A. B. C. ASK \$200,000

Finally Files Suit for Damages Against Stearns—Bill of Complaint a Series of Tabasco Allegations.

The long-expected explosion, with Syracuse, N. Y., as the storm center, has taken place. It has for months been common talk in the trade that the American Bicycle Co. and the Stearns-Maslin interests would sooner or later lock horns. The bone of contention was the manufacture of Regal and Holland bicycles, in which Messrs. Stearns and Maslin were asserted to be interested.

Some weeks ago the rumors assumed more definite shape. Diplomatic denials were made by both sides, those emanating from the A. B. C. quarters being to the effect that no suit had been brought against the Syracusans. The only move that had been made, it was said, was to ask Messrs. Stearns & Maslin to sign the agreement presented to them some time ago binding themselves not to engage in the manufacture of bicycles.

In this connection it is interesting to recall that E. C. Stearns is still a director in the A. B. C.

Last week, however, all doubts were set at rest. It was announced that suit had been brought by the A. B. C. against the Stearns Bicycle Agency; Edward C. Stearns, individually and as a director; Herbert E. Maslin, individually and as president and director, and William A. Doubleday, as treasurer and director of the defendant company, in which \$200,000 damages are demanded and an injunction asked.

In the bill of complaint it is alleged that while Messrs. Stearns and Maslin were in the employ of the American Bicycle Company, better known as the trust, they entered into a conspiracy to the damage of the complainant. A part of the conspiracy, it is claimed, was to purchase through Mr. Doubleday the capital stock of the Stearns Bicycle agency from the American Company, which bought it when it acquired the interests of E. G. Stearns & Company. The agency was formed for retail business. At the time, it is claimed, Mr. Stearns, who was then local manager for the American Company at \$12,000 a year salary, advised the sale to Mr. Doubleday.

It is further claimed that Messrs. Stearns and Maslin entered into a conspiracy while still in the employ of the trust to lease from the trust the old Stearns factory, which the trust had purchased, representing to the complainant that they wanted to use the factory for making hardware and automobiles, in which Mr. Stearns was then interested. The purpose of leasing the factory is claimed to be for the manufacture of bicycles in competition with the American Company, and not for the purposes represented.

It is also set forth that Messrs. Maslin and Doubleday then organized as W. A. Doubleday & Co., a corporation, and it is alleged that this company assumed the real business of the Stearns Bicycle Agency. The only asset of the Stearns Bicycle Agency which did not go to W. A. Doubleday & Co., it is claimed, was the name of the corporation.

The Stearns Bicycle Agency, it is claimed, was then transferred to the old Stearns factory and the capital stock immediately increased from \$6,000 to \$100,000. It is further claimed that the defendants sent circulars signed by the name of the Stearns Bicycle Agency per H. A. Maslin as president to the agents of the American Company and to the agents for the old Stearns wheels. It is claimed that these circulars represented the agency as selling the "Stearns wheels" and "yellow fellows," and asked the trade to wait before making their next year's contracts until they received further information about the bicycles sold by the agency. This wheel, it is alleged, turned out to be the "Regal" wheel.

These circulars, it is claimed, were further misleading because Mr. Maslin had written the same trade, signing his name as being connected with the sale department of the American Bicycle Company. The circulars, it is claimed, were followed up by salesmen, who in many instances sold hardware manufactured by Stearns, which confused the dealers. It was also claimed that it was represented that the trust was to discontinue making the Stearns bicycle, while in fact, it is said, the trust has more agents selling that wheel than ever before and at the same time has twice the number of workmen engaged in making it as were ever before so employed.

It is further claimed that the defendants, while still the employees of the complainant, inclosed a part of the Stearns factory from the observation of the public and the plaintiff and there engaged in experiments in the manufacture of the new bicycle. This wheel, it is alleged, is a close pattern of the Stearns wheel, having a similar name, the same colored enamel and striping, the same style of joints and frame, and, in fact, being a Chinese copy.

In addition to the \$200,000 damages demanded, it is asked that a permanent injunction be issued, restraining the defendants from making use of the words "Stearns," "yellow fellows," "original Stearns plant," in any form in the manufacture and sale of bicycles. It is also asked that the defendants render a full account of profits derived from the alleged infringement of rights.

When asked regarding the suit E. C. Stearns said that he did not care to discuss the matter in any way. Mr. Maslin said that he had been out of town and had not carefully looked over the papers. He said, however, that he would deny any charge that either he or Mr. Stearns was in any way engaged in the bicycle business.

BUESCHER BUYS SOUDAN

The Plant at Elkhart Changes Hands and Gives Purchaser Room for Expansion.

Negotiations have been concluded by which the Buescher Mfg. Co., of Elkhart, Ind., has purchased the factory of the Soudan Mfg. Co., of the same place.

The growth of the former company has been such that it has entirely outgrown its present leased quarters, although at the time of its starting they were too large. The concern has been looking around for a suitable property for some time, and even had under consideration offers from other towns to remove to them. With the failure of the Soudan Co., however, a plant that was almost ideal came on the market, and the opportunity presented to acquire it has been made use of.

By this purchase the Buescher Co. acquires some fifteen thousand more square feet of space than it has in its present quarters, besides opportunities for enlargement and application adapted to the increase of power.

The company expects to spend about \$15,000 in improving the plant and adding to its machinery. The enlargement of the building will begin at once, and when the improvements are completed the company will have a first-class industrial establishment adapted to the manufacture of its various specialties.

The company expects to occupy the new plant by September 1.

Strike Causes Little Inconvenience.

While nearly all factories in are allied with the cycle trade are more or less affected by the machinists' strike, little inconvenience is being experienced, the season's rush being practically over. In many plants the action of the men simply antedated their annual laying-off.

The American Bicycle Co. is among those that refused to accede to the machinists' demands. In the Columbia factory at Hartford 500 of 700 men went out, and the other factories were affected in a corresponding ratio. The Warwick Cycle and Automobile Co., at Springfield, and the Springfield Drop Forge Co. also refused the men's demands, but at Chicopee Falls, but a few miles distant, while the men talked strike, all employed by the J. Stevens Arms & Tool Co. reported for work. In Hartford a similar state of affairs exists. While the A. B. C. and the Hartford Machine Screw Co.'s men are on strike, not one man of the Billings & Spencer and Veeder forces went out. All of the men there are old employees, and the union was not strong enough to induce them to quit.

Sanger Creditors Meet May 27.

Referee D. Lloyd Jones of the Sanger Handle Bar and Plating Co., of Milwaukee, Wis., has notified those interested that the first meeting of its creditors will be held at Room 434, Postoffice Building, Milwaukee, Wis., on May 27, 1901, at 10 o'clock in the forenoon, at which time the said creditors may attend.

ALLEN ON EXPORTS

Visiting Londoner Talks of his Success with American Bicycles in England—Is now Trying American Detachable Tires.

It is neither interesting nor altogether instructive to go into the whys and wherefores of the decline of the export trade in cycles.

It is a long story, with little to relieve its sombreness. It teems with mistakes, with opportunities wasted and others ungrasped. The height reached by the boom tide is, perhaps, even more remarkable than the depth to which it has fallen. It will stand for all time, a landmark showing what colossal proportions the business assumed ere the inevitable reaction set in. If in addition it points a lesson which is studied and heeded, it will not be without its compensations.

At the present time the most important question is, Has the worst come, and if not, what steps can be taken to check a further descent? The decline of more than one-half in the value of American cycle exports in three years is bad enough in all conscience. But if the end is not yet, if the tide is still receding, the burning question is, Can a remedy be applied?

Considerable light is shed on the subject by one who is peculiarly qualified to speak on it, viz., by H. A. Allen, of Davis, Allen & Co., of New York and London, exporters of cycles and many other articles. The *Bicycling World* man was fortunate in finding Mr. Allen in and at leisure one afternoon last week, and took advantage of the occasion to extract from him much interesting and valuable information concerning European markets and the attitude of merchants and buyers toward American cycles.

It is perhaps not generally known that Davis, Allen & Co. are among the largest exporters of cycles in this country. They will ship from this port this season some eighteen thousand bicycles, all the product of one factory, and could more machines have been produced in time this number could have been considerably exceeded.

Their field of operations is Great Britain and the Scandinavian countries. Singularly enough, it is in the latter that the season starts the sooner and is over the quicker. No orders are booked from these countries—Denmark, Norway and Sweden—after the first of the year, and the shipping season is now over.

Great Britain comes later, the season lasting until July 15. At the present time some four hundred or five hundred machines are being sent there each week. Very little business is done with Germany or other European countries.

These cycles are all manufactured by the Wisconsin Wheel Works, Racine Junction, Wis. They are constructed according to the

specifications of Davis, Allen & Co., and as fast as ready are shipped to New York and thence sent to their destinations. The most notable shipment this year was the trainload of machines which, as noted in the *Bicycling World* at the time, was destined for Scandinavian points.

"We do business in a peculiar way," said Mr. Allen, "and that it is the right way is proved by the fact that our trade increases largely each year. We shall take more machines this season than ever before—to the number of several thousands, in fact. But, could we have specified in time, we could have sold a considerable number in excess of this quantity.

"The secret of our success lies in giving the people what they want. In Great Britain, for example, we sell just the machines that buyers will take without question. They are entirely different from the ordinary American cycle. We have them built with three-piece crank-shaft construction, cotter pins, square-plate fork crowns, steel rims, wired tires, guards, brakes, etc., just as riders have been accustomed to using for years. We don't try to convince the dealers that they are wrong, and they don't argue with their customers. They simply sell them machines that can scarcely be told from those of British manufacture.

"Why, in some cases our nameplates are taken off and a local transfer put on and the machines sold as of English make. That is how much they resemble the native product. The great majority of them, however, are sold with our nameplate, styled the Beebe, and compete on equal terms with English makes.

"The price varies, of course, but it is usually about \$35. The machines enter into competition with such English wheels as the Rudge-Whitworth, which sells for 8 guineas. That is the popular figure over there, although many concerns have nothing cheaper than 10 guineas. There are others listing as high as 25 guineas, but the number of high-priced machines sold is very small. They will all have to follow the lead of Rudge-Whitworth, which is really the progressive concern over there.

"Is it true that American cycles can be sold there only at a lower price than the home product?" repeated Mr. Allen. "Yes and no. The English are conservative and will give the preference to their own goods, of course. But once you get started with them, and give satisfaction, you have plain sailing.

"Why, there are concerns that have a standing rule not to deal with a concern until its representative has called on them for a year. That is to be satisfied of their standing. Once you get an order, however, you need not worry about the future. If your goods give satisfaction they will not think of changing. Dealings are very satisfactory on that account. They are very loyal to any one who treats them right.

"Therefore American cycles, if they are satisfactory, can be sold there on their merits

and not on price alone. That leads up to another matter. I refer to the great harm that has been done in the past by making Europe a dumping ground for cheap stuff which could not be sold here." It gave the American cycle a bad name everywhere, and it is still suffering from it in a great measure.

"I understand there are now at Hamburg and other German ports thousands and thousands of such machines awaiting purchasers. They are almost worthless, and could not be taken anywhere except to the free ports. At ports where duties are levied the latter would frequently amount to more than the machines would bring."

The subject of tires was then taken up. Mr. Allen said that nearly all their machines were shipped without tires. They were fitted with steel rims shaped to take tires made by the Dunlop Co., or some of the concerns licensed by it. The great demand was for wired tires, and of course this was where the big tire monopoly scored heavily.

At the present time an experiment was being tried with a wired tire of American manufacture, and of it Mr. Allen entertained a very favorable opinion. It is the Goodyear detachable tire, and is the development of the tire variously known as the Scott and the Scott-Rogers tire, invented by R. P. Scott, of Cadiz, O.

In its present form it fits Dunlop rims, and will appeal with peculiar force to buyers who have been in the habit of specifying the Dunlop tire. The principle is that of a wire tape inserted in each edge of the outer cover; this expands when the tire is inflated and contracts—laterally, of course—when it is deflated.

Mr. Allen is the London resident partner of his firm, and is in this country for only a few weeks. His firm exports clocks and other specialties in addition to cycles, and works the British provinces very thoroughly. Some fifteen travellers are employed, and they work in the firm's various lines with their customers, most of whom appear to have solved the sideline problem.

The firm has been in existence some five or six years. It was started in rather a queer manner. Mr. Allen's brother started for South America, via London, to engage in business there.

He missed his boat, and relieved the tedium of his wait in the British metropolis by engaging in the sale of various lines of goods. So successful was he that the trip to South America was first postponed and then abandoned altogether. Ultimately the present firm was formed, Mr. Davis coming from San Francisco, where he ran the biggest retail store in the city, to manage things at the New-York end.

Rood Itemizes it.

In accordance with the order of Judge Thayer given on April 19, C. E. Rood, of Springfield, Mass., last week filed his itemized statement as to claims against the Keating Wheel and Automobile Co., of Middletown, Conn. The committee on claims—Messrs. Northrop and Haines—will hold a hearing on the matter soon. They will then make a report to the court.

How to Make a Dry Battery.

William Roche, the well-known New York manufacturer of dry batteries, gives the following method in the *Telegraph Age* for making a dry battery at home:

"First make a zinc cup, then roll a cup or tube of blotting paper, about three or four turns, to fit tight inside of the zinc cup, and pour in the bottom of the cup about two tablespoonfuls of hot melted pitch or rosin, to insulate the bottom of the cup. Next make your solution. This is done by dissolving five ounces of sal-ammoniac in one pint of clear water. When so dissolved add seven ounces of granulated chloride of zinc. Stir thoroughly till dissolved, and continue stirring every few minutes for one hour or more. The solution is then ready for use.

"The manner of making a negative or carbon element is to mix eight ounces of powdered black oxide of manganese and sixteen ounces of powdered carbon thoroughly together, and dampen or moisten with five fluid ounces of the solution. If the carbon and manganese are very dry you may need a little more solution. All that remains now to complete the cell is to soak the blotting paper inside of the zinc can thoroughly with the solution; fill the can about three-quarters full and let it stand a couple of minutes; then pour out the solution, place your carbon plate in the centre of the zinc can and pack your carbon element good and hard. The packing will probably force a little of the solution up the paper by compression,

but that will not injure the cell any. When the powdered elements are wet enough clean away all particles of the carbon element from the top of the paper and zinc can, so that there will be no internal short circuit; seal your cell, and when you have your connectors on the cell is ready for use. This formula will produce a cell from 20 to 50 per cent better than most of the dry cells of the present day."

Literally Auto-Bi-ographical.

When they compiled their catalog, which is now being distributed, the E. R. Thomas Motor Co. "missed a trick"—they might have styled the publication the "Auto-Bi-ography," for, dealing with the Auto-Bi, that is literally what it is.

The fact that the play on words was not employed does not, however, detract from the merit of the catalog. It is full of interest, information and argument that cannot but redound to the benefit of the motor bicycle. The most is made of the "no-hills-no-headwinds" slogan, the cover telling the story far more effectively than mere words. It illustrates two cyclists going up hill, one—the one on an Auto-Bi—sitting upright and coasting with one thumb in his pocket; the other—the one on a pedal-propelled bicycle—doubled over his bars, and with a look of anguish on his face.

The catalog relates what is not generally known—that one member of the Thomas Co. has been engaged with gas engines since 1876, the year the first fairly successful engine was invented.

How They Attract Attention.

On the principle of "practise what you preach" is the line of action pursued by the active and voluble colored men who are pushing the detachable bicycle which was on exhibition at the last cycle show.

The Bicycling World man has encountered them several times of late on New York's downtown streets, and on each of these occasions they have secured some free advertising and enjoyed the publicity which came to them in consequence. Their modus operandi was as follows:

Upon reaching a store where they had business they would stop and dismount, carrying their machines to the pavement. Then with one quick twist they would remove the front forks and wheel from the balance of the machine, and with a second they took off the forward half of the frame, leaving the bicycle in three parts. Then, to the accompaniment of wondering glances from those who had witnessed the performance, they would deposit two of the portions in some convenient place near the entrance to the store and with the third enter the latter.

As one of them explained to the Bicycling World man, "We don't have any uneasy feeling about the machine, or have to be watching it all the time. We know that when we go out for it we shall find it there."

Long practice has made them adepts at separating and uniting the machines, and they never fail to get the looks of wonder and approving comments that are their due. Certainly, for deft handling they could scarcely be surpassed.

You see the Blank coaster-brake here,
the Dash there, but

The Morrow Coaster Brake Is Everywhere.

Its fame is not localized or restricted—
it is universal.

As

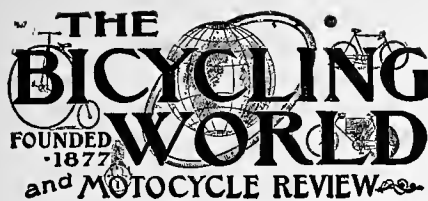
One Bicycle Manufacturer Expressed it
in giving his reasons for the adoption of the Morrow:

*"So many people think that all coaster-brakes
are Morrows that life is too short and time
too precious to be spent in excusing or trying
to explain the use of 'just-as-goods'."*

Are You Wasting Your Time?

ECLIPSE MANUFACTURING CO., Elmira, N. Y.

New York Office, 105-107 Chambers St.



In which is Incorporated
"The Wheel" and the "American Cyclist."

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, MAY 23, 1901.

In One Decade.

A decade ago all the weldless steel tubing used in the construction of bicycles was imported into this country.

The manufacture of this important, even indispensable, article was regarded as a masterpiece of mechanical skill. Of a semi-secret character, the processes by which it was turned out were looked upon as peculiarly their own by British makers; and this view was shared to a very great extent by those on this side of the water.

When, therefore, the first project to introduce the manufacture of steel tubing in this country was formed it was an experiment of a very dubious character.

Even those interested in it must be credited with a courage beyond the ordinary. But it turned out—as it has done so often before—that imagination played the largest part in the matter, and that the fancied difficulties disappeared almost as soon as they were attacked.

Within a comparatively short time other

concerns undertook the manufacture of tubing, and since then there has been but little else than the home article used here.

In the matter of quality the American tubing leaves nothing to be desired. Price, too, has been brought to a figure that could not have been approached under different circumstances. Indeed, in some quarters it will be contended that it has been brought too low.

Nothing shows better than this how rapidly events march.

Distinctly Encouraging.

There is no longer any room for doubt that the much desired but scarcely expected revival of interest in cycling is in sight.

Not even the unseasonable weather which prevailed almost uninterruptedly until well into May prevented the appearance of the avant couriers of the movement. Since the embargo of rain has been raised they have been reinforced unmistakably. Apparently there is nothing of an ephemeral character about them.

All observers agree that there are more riders to be seen than for several years past. Nearly all classes appear to be taking part in the renaissance, from the so-called upper circles to the lower strata of society.

The knowledge that a revival is in progress is in the air. Few dispute it. Most people admit it without argument, and as likely as not remark, when discussing the matter, that they must get out their bicycles also.

In the trade the same belief is shared. If we go among the dealers and repairers we find unmistakable evidences of this. Old machines by the scores and hundreds have been brought out of a seclusion lasting sometimes for years, and are being put in condition to ride.

The situation is one which offers distinct encouragement. Although there is not the slightest indication of a boom, and there is no telling how far the movement begun so auspiciously will go, it is gratifying to have the belief that the bottom has been reached confirmed. Jeremiahs are in a fair way to find their occupation gone.

The nearness of the heated season may check the revival. It may even have reached its height now, being but a temporary improvement, to be followed by a fall to the normal level.

But all signs are against such an outcome. If the revival is not a genuine one, if it is not almost entirely spontaneous and brought

about by nothing but a desire to once more partake of the pleasures of cycling, foregone for varying periods—if, in short, it does not hold out real encouragement to the trade and others interested in cycling—then all signs fail.

As to how the revival will affect or influence sales it is too early to say. The backwardness of the selling season is very marked, so marked that any improvement noticeable at this time can easily be confounded with the normal demand that must exist.

Whether riders who have brought out their old machines will evince any desire to exchange them for new ones will depend on two things.

First, whether the pastime resumes its hold on the returning wanderers or fails to do so. Second, whether they can be convinced that the new machines have been improved sufficiently to warrant exchanges.

It is this phase of the matter that will be watched with most interest.

The Flatter of Price Maintenance.

Wherever there is interest in price maintenance there must be interest in any and all plans that make for and obtain that desirable result.

Signs are not lacking that the cycle and kindred trades are taking a keener interest in the matter than for several years past; and well they may. With the reduction of prices and of sales there are reasons why prices must be upheld if profits are to be earned and ends made to meet. The dealers realize it fully, and with the usual few exceptions they are reasonably certain to accord hearty support to the manufacturer who takes a stand and dares maintain it; and for the benefit of the many it does seem that more makers should hold out against and combat the few.

We recently detailed the policy which maintains the price of Bissell carpet sweepers, and in another column present the Kodak plan, which effects the same result.

There is no lack of competition in cameras or in films, and the fact that one may step into any store dealing in the goods and find it impossible to purchase so much as a roll of one dozen Kodak films for less than 60 cents is evidence that the "Kodak plan" is one that works. It holds hope for the manufacturer of even the simple cycle sundry if he will but appreciate the fact. He really owes something to the dealer who purchases his goods with the idea of deriving a stated

profit, and when this profit is lessened or wiped out because the manufacturer permits other purchasers to make their own prices it is cause enough for complaint, and something more.

The pretence of price maintenance which has obtained in the cycle trade has been too shallow. The price-respecting agent deserves protection and his due, and should be accorded it. His due is the full profit that is substantially promised him when he makes his purchase.

Not merely for the sake of their own pocket and immediate gain, but for the sake of their future and their patrons, this view should more generally obtain with manufacturers. Those concerned in the cycle trade may well give it heed. What the Bissells and Eastmans and others have done, and can do, and are doing, they should be able to do.

Fears Were Baseless.

Out of sight out of mind, says the old saw, and a thousand things bear it out.

There's the coaster-brake, for example. When it first came into extended use fears were entertained that it would be the cause of many accidents. Warnings almost without number were sounded, and riders were besought to use the utmost care in their use of the new device.

The terrible consequences that were almost certain to result if the braking mechanism should fail to work, or, worse still, if the chain should break, were eloquently pictured.

Use an extra brake, was the exhortation to riders. If you don't, you are at the mercy of something known to break frequently—the chain—or of a device the reliability of which is yet untested. Self-preservation demands that these be guarded against.

It is already ancient history now how these forebodings turned out to be baseless. Few riders heeded the admonition to provide a supplementary brake—as should be done even now—and no dire results followed.

No reports of accidents found prominent places in the columns of the yellow journals. No chains broke, no braking devices failed to work; leastwise if they did nothing was heard of them.

To-day even the remembrance of the forebodings at first entertained has passed away.

If some one asks what would happen if a chain should break we involuntarily say, "Sure enough, it would be terrible; but I had clean forgotten that I ever feared such a thing."

Then the conversation ceases and the matter is forgotten.

The Speed of Motocycles.

Too much is being made, both by word of mouth and of type, of the speed of motorcycles. It is time the fact was realized. There are other considerations more important than speed, and they are the ones that should be made more of.

Of course, power suggests speed; but if, instead of pace, hill-climbing capacity was more spoken of and written of, the interests of motorcycles would be considerably enhanced.

As a matter of fact, the trouble with some motor bicycles is not the lack of speed, but the too-muchness of it. From the standpoint of general utility, the ability to proceed slowly is more vital than the matter of unlimited pace. It will be well for designers and builders of motor bicycles to appreciate the fact. Measured by the sparking or speed lever, the slowest speed of several bicycles presses hard on the limits fixed by law.

Only last week there came to our notice a case of the sort. The motocyclist had been so often stopped by the police that he had become disgusted at his inability to travel slowly, and was seeking to dispose of his bicycle.

In the open country speed may be advantageous and desirable; in the city parks or thoroughfares it is a deterrent—more, it is dangerous.

How You Can Help.

Much has been said about the so-called decline of cycling, its causes, the probability of its continuing to be, in a measure, in disfavor, and the chances of a swing of the pendulum in the opposite direction coming.

That the pastime was overdone, and is but paying the penalty, is generally admitted. The fact that its novelty has worn off to a great extent is rightly put forth as another reason for the comparative neglect into which it has fallen. It was its newness that attracted many recruits, and since that has passed it no longer attracts faddists.

Another reason, and one which has not received the notice its importance deserves, is to be found in the essentially sociable character of cycling.

There are riders who get as much enjoyment out of solitary rides as ever. Either from pure love of cycling or because of a desire for that best of all company—their own—they continue to pursue the pastime with almost the same assiduity as of yore.

They have no regret for the past, nor do they even perceive a difference.

But it is very different with the great majority of riders. They took to the cycle because, among other reasons, their friends rode. Trips, big and little, participated in by parties of congenial spirits, gave them their greatest pleasure, even when the pastime was new.

One has but to go among former riders and talk to them to be convinced of the truth of this.

Some of them—the butterflies of cycling—became riders solely because it was the fashion to do so. They swam with the tide without ever acquiring any real love for the pastime, and when it receded they were quite content to go with it.

Others will declare that they are just as fond of cycling as ever; that nothing would give them more pleasure than to resume their pleasure trips and devote themselves to the wheel in the good old fashion, and add that they intend to do so this year.

But, they also say, they want company. With it cycling would possess all its old charm, with the added one of semi-novelty conferred by the abstention of the past year or two. Without company, however, half the pleasure is gone. It requires an effort to take the accustomed rides.

It is this feature which makes the increased interest in cycling this year doubly welcome.

Each rider who resumes the pastime after abstaining from it for some time will be apt to influence others to follow his example. The tide once set in this direction, even if it is not anything like as strong as the former one, will bear good fruit.

Every tradesman can do something to help this tide. Will you do your part?

The "mystery" of "Mrs. Mary Easton, M. D.," the renowned "medical expert" and "recommender" of A. B. C. bicycles, is still a semi-mystery. "Dinnis" Kelley, Jim Sullivan's friend, who could solve it, and who made a bluff of "sic-ing" his lawyers on the Bicycling World, has wrapped himself in his picturesque language and tucked the secret close to his thorax.

Trading is being indulged in very cautiously this season. Many dealers are emphatic in the assertion that they will not touch a second-hand machine unless they are sure of making a good profit out of it as well as out of the new machine.

PRICE MAINTENANCE

Policy Pursued in Marketing one of the Most Popular of American Wares—Offers Suggestion to Cycle Trade.

If there has been one article that more than any other has made the price-cutters' fingers twitch it has been the Kodak camera. Its worldwide fame and popularity have made it a shining mark for the slasher, for a cut on Kodaks is equivalent to a full store. The Eastman Kodak Co. have been, notwithstanding, so singularly successful in maintaining their figures that the methods which effected the happy result cannot fail of interest to the cycle and sundry trade, so long the happy hunting ground of the price-cutter that the disposition to check the hunter in the interests of self-preservation is attaining force and volume, and must ultimately result in a determined stand of some sort.

When asked "how they did it" S. H. Mora, sales manager of the Eastman Co., proved a ready listener and a cheerful giver, and accorded the *Bicycling World* all information at his command.

"Our policy," he said, "evolved from the several occasions when the photographic trade has been threatened with demoralization, similar to that which I understand the bicycle trade has suffered from. In all the larger cities where there were a number of dealers competition had led to price-cutting on lines not sold subject to restrictions as to selling price. There was another evil, too, from which we have tried to escape. Our line of goods being well known to the general public, and the most extensively advertised of anything in the photographic line, it naturally followed that any concern that desired to use some article as a leader at a cut price was liable to take ours, because of its being the standard of value. Our experience has been that where a large dealer uses an article as a leader at a cut price the small dealer is forced in self-protection to push some other article that is not so well known to the public, and on which he can make a fair margin of profit.

"For these reasons we have always considered it to our advantage to have prices maintained, and the support afforded by the retail trade has been sufficient to justify our continuing the policy. In fact, on two or three occasions we have taken a vote of the trade, and in every instance those who voted for the continuance have represented about 97 or 98 per cent of the total trade of the dealers who voted.

"As regards our method, up to about two years ago Kodaks were sold on a contract to maintain prices, but we were forced to abandon that system, because of certain laws, and also the fact that a dealer who was disposed to cut underhandedly would do so and then, when caught at it, claim it was a mistake, in which case it only left us the option either

to refuse to sell him altogether or accept his statement and reinstate him.

"With our present plan, however, the dealer gets what is a fair margin of profit in the first place, and then an additional concession in consideration of his complying with our conditions of sale. This system is of very great advantage over the old one, inasmuch as the dealer who may be disposed

Making all Cycles Motocycles.

Since the motor bicycle attained prominence not a few inventors have schemed fortune-making devices designed to enable any man to readily convert his pedal-propelled bicycle into a motor-driven one. Without expressing an opinion of the article itself, it is fair to say that none of these many efforts have taken such a compact and attractive form as that shown by the accompanying illustration—the Motošacoche, as it



is styled by its makers, the Dufaux Freres, Geneva, Switzerland.

The motor, battery, carburetter and other mechanism are all contained within what resembles a tourist's case, which is securely bolted into the frame; only the driving belt and pulley are exposed. Just how the mechanism is distributed or how it operates, the Dufaux description does not make plain. The motor is claimed to be of $1\frac{1}{4}$ horsepower, the mixture and speed and compression being controlled by one lever.

If the device proved practical, much effort would not be required to create a considerable demand.

to cut prices will not take the chances of losing the additional credit."

The Kodak policy is specifically stated on each and every price list or discount sheet supplied to dealers. In addition to the necessary figures, these lists bear these "terms and conditions of sale" prominently displayed:

"Dealers must not sell either directly or

indirectly at any greater discount or less net price than named above.

"Giving away or selling other goods at less than dealers' regular price for same in order to induce sale of Kodaks will be considered contrary to the conditions hereof.

"Dealers shall not place Kodaks, roll holders or film on consignment at or sell from any place or store not authorized.

"Any camera hereon named which is sold at a reduced price as second-hand must have been in actual use for sufficient length of time so that the fact of its being second-hand can be readily detected at a glance by a casual observation.

"Using second-hand Kodaks as advertising leaders at cut prices is contrary to the conditions hereof.

"Kodaks are not sold on consignment or subject to return for any other cause than defect in manufacture.

"EXCHANGE BETWEEN DEALERS. Authorized dealers will in case of emergency be allowed to borrow from any other authorized dealer, provided that the goods so borrowed are actually replaced with goods of the same style and make. If a sale takes place between dealers it must be at full list prices only.

"OLD FILM. Film which has grown too old on dealers' shelves to deliver safely to consumer can be returned to the factory, freight or expressage paid, and a credit of 50 per cent of the list price will be given, provided it is returned within three months from expiration of time limit and the quantity is not excessive.

"CONDITIONAL CREDIT MEMORANDUM. On or about the 20th of each month a memorandum will be sent each dealer showing the amount of previous month's net purchases of Kodaks, Brownie cameras, film, roll holders and sensitive papers shipped by us (additional charges for special equipments not included). If this memorandum is returned at the time indicated thereon, properly signed and verified to the satisfaction of this company, a credit of 12 per cent on such net purchases will be made the dealer so returning same.

"The discounts first mentioned represent the full trade discounts, but an extra credit as above stated is offered as a special consideration for advantages accruing to us and the General Aristo Co., for which we are trade agents, through having our specialties sold at a price that affords the dealer a profit large enough to warrant his energetically and exclusively pushing their sale and complying with the other conditions of sale herein mentioned. This credit will not under any circumstances be allowed where the conditions of offer are not strictly complied with."

While Kodaks themselves cannot but arouse the cupidity of the price-cutter, Kodak films and paper comprise an even greater temptation. The demand is great and the price relatively small, but that one price obtains everywhere can be readily demonstrated by haphazard inquiry in any store, be it great or small. These films are safeguarded even more jealously than the cameras themselves, for in addition to the foregoing "terms and conditions of sale" these also apply to film and paper:

"They shall be resold by dealers strictly at list prices.

"Dealers are to resell same in original packages only and not to break packages, repack or sell from broken packages.

"Dealers shall not offer or advertise same at reduced prices. Any such offer or advertisement will be deemed contrary to these terms of sale, irrespective of whether an actual sale takes place or not."

The "conditional credit memorandum"

which is stated to be of such effect is substantially as follows:

"Rochester, N. Y. 1901.
"To

"If this memorandum and subjoined statement is surrendered to us within twenty (20) days after the date it becomes due, said statement being properly signed, without alteration and verified to our satisfaction, we will credit your account with us or with one of the General Aristo divisions with \$....., this amount being equal to 12 per cent of your total net purchases of us of Kodaks, roll holders, transparent and paper film and General Aristo sensitized papers, except platinum and blue print, during the month of 190 , and which

	Purchases.	Cond. Cr.
amounted to—		
Paper	Net.....	
Film	".....	
Kodaks	".....	
Total		

"This memorandum becomes due on..... 1st, 190

"EASTMAN KODAK COMPANY.

"By

"To the Eastman Kodak Company, Rochester, N. Y.:

"I (we) hereby state, that I (we) have not within the four months next preceding the date mentioned below, received, bought, sold, carried in stock or disposed of, either directly or indirectly, or accepted any commission or consideration on or because of the sale of any film cameras, roll holders, sensitive photographic papers and fabrics, sensitive rollable transparent or paper film, or platinum solution for toning Aristo papers, other than those manufactured by yourselves or the General Aristo Co., for which you are trade agents; that with the exceptions below stated I (we) have sold all of said goods at the prices for same stated in your price lists and terms of sale in effect at the time of sale by me (us), and that no arrangement, either expressed or implied, has been made or exists by which any compensation, rebate, gain or advantage has been or is to be allowed, either directly or indirectly, to any purchaser of any of said film cameras, roll holders, sensitive photographic papers, or rollable transparent or paper film.

"I (we) further state that all of above-mentioned sensitive papers have been sold by me (us) in unbroken original packages only.

"Dated.....190

"This statement must not be signed before the date it becomes due."

The Chain and its Workings.

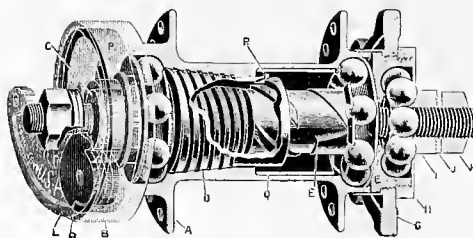
According to Charles R. Gerrard, whom known expert," bicycle chains "work under the English papers describe as "that well-the worst possible conditions that any mechanical device having bearings can possibly work under, viz., oil, wet, grit (such as flint, silicon, etc.); some 110 working joints, 110 working rollers and 550 separate pieces in all, loaded and jerked alternately from zero to 600 pounds. The area of a rivet's working surface is generally .048 of a square inch, and therefore the pressure often rises to 125,000 pounds—or over 51 tons per square inch. When each rivet and sleeve have worn .003, the chain will have become over five-eighths of an inch longer thereby."

These assertions lead the English papers aforesaid to again cry out for gear cases. The chainless bicycle does not apparently suggest itself to them.

The Newest New Departure.

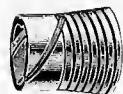
It has been known for some little time that the New Departure Bell Co., Bristol, Conn., was at work on an improved model of their well-known coaster-brake, and the trade has awaited particulars of it with considerable interest.

The new model has now been placed on



SECTIONAL VIEW.

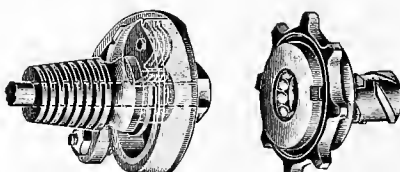
the market, and can scarcely fail to create favorable comment. Always noted for its simplicity and efficiency, the device has been still further improved in these and other respects, and in its new form will be found to be as reliable and as free from trouble as the ordinary fixed gear hub.



CLUTCH.

The hub barrel is provided with a ball cup in each end and a brake drum, all formed in one solid piece of steel. There are no parts to be screwed in, all slipping together by hand and securely fastened by the small adjusting cone shown on axle.

The axle is of the usual construction used

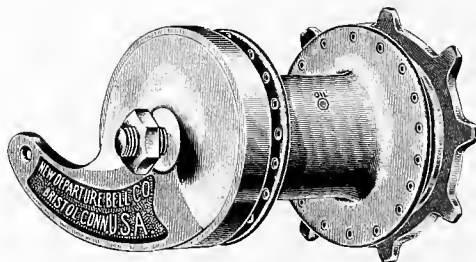


BRAKE.

DRIVER.

with solid hubs—simply a straight rod with screw threads at each end.

The part to which the sprocket is attached projects within the hub and operates the clutching device. When coasting and holding the feet stationary this part, through its engagement with the part shown below,



EXTERIOR VIEW.

clutches the brake, and a slight backward movement expands the brake ring into drum of hub and retards the wheel in exact proportion to the backward pressure exerted.

The clutch, in operation with the driver, is

provided with an internal clutching surface which engages with the brake upon a backward movement of the pedals; upon forward movement the outer clutching surface engages the hub barrel and propels the wheel.

The brake and its actuator are operated by the clutch. The brake is composed of a split steel ring which is expanded into frictional contact with the brake drum. The parts are hardened steel and of a strength rendering them practically indestructible. No fibre, leather or any material softer than steel is used.

Detachable sprockets provide for the fitting of hub with any size, thickness or pitch of sprocket, and also allow for 1½, 1¾ or 1⅞ inch chain line, all on the same hub.

The dealer can provide for all possible requirements by keeping in stock an assortment of sprockets, which can be returned at any time at full price, or exchanged, and a comparatively smaller number of hubs.

The part E, which is rigidly connected to sprocket G, is connected by spiral keys with the clutch sleeve D. The forward motion of sprocket clutches the hub, the backward motion the brake. The balls are ⅜ inch in size, and all are mounted in containers to facilitate handling. All bearings are absolutely free, and all are adjusted by cone I.

The hubs are guaranteed by the makers for one year, and all repairs will be made free of charge.

Good Enough for Tires.

A new substitute for india rubber is made from corn oil, a product of the glucose factories. In color it is reddish brown, and resembles ordinary rubber. It does not resist heat so well as india rubber does, but it is said that it always remains pliable, and will not crack. The manufacturers of the new product expect to sell it as a substitute for india rubber in nearly all the uses of the latter, including, of course, the making of bicycle tires.

Low Rates to the South.

Excursion tickets at reduced rates are now being sold by the Chicago, Milwaukee & St. Paul Railway to the prominent resorts in the South, including Jacksonville, Fla., Mobile, Ala., New Orleans, La., Savannah, Ga., El Paso, Tex., which are good for return passage at any time prior to June 1st, 1901. Information regarding rates, routes, time, etc., can be obtained on application to any coupon ticket agent of the Chicago, Milwaukee & St. Paul Railway. ***

Floated a Brake Company.

Testimony to the average British rider's liking for rim brakes is borne by the successful flotation of a limited liability company in London to take over the business of a concern making a popular form of brake. In spite of the fact that cycle flotations are distinctly out of favor, this concern was largely oversubscribed.

WILMOT'S CLEVER WORK

How he Deals With Sidelines and Mail-order Bicycles—Suggestions for Dealers.

Always a shrewd advertiser and clever planner and compounder of words, that rare old veteran, W. D. Wilmot, of Fall River, Mass., like wine, improves with age.

As showing other dealers "how to do it" the following circular, which Wilmot has mailed to the Fall River public, and which incidentally shows how well he has grasped the matters of motor bicycles, mail-order bicycles and sidelines, is of self-suggestive value:

"To Our Friends Old and New:

"First let us thank you for your generous patronage, and assure you that we want to earn the conscious satisfaction of pleasing you in all our dealings with you in the future.

"This, our sixth, season finds us with a great deal to say about a great many new things we have to offer, and we have selected this medium to say it.

"It is easy for us to talk when we have so much that is interesting to say to you. When we first commenced business in Fall River, five years ago, we had nothing to offer but bicycles, and they were the Columbia and Hartford.

"Since then (thanks again to you) we have prospered and have kept our eye on the demands of the times, and have added first one sort of goods, then another, until now we have the name of being able to supply almost everything that comes under the head of 'sporting goods.'

"Bicycles were not so cheap when we began business five years ago. This season the prices will range from \$17.50 for a strong wheel, with cheap tires, to the new motor bicycle, selling at \$200 and \$250.

"The \$17.50 wheel is the Westminster. It is the wheel for those who read advertisements and send to distant cities through the mails for cheap bicycles. Let us tell you it is a good deal safer and cheaper to trade at home, where you can see what you are buying before you pay for it.

"The new motor bicycle, called the Thomas Auto-Bi, is intended for a wider field than that of mere pleasure seeking. Physicians, professional men and lots of others who find it necessary to make quick trips will appreciate the Auto-Bi motor bicycle as a servant that will speed faster, travel longer and is less expensive than a horse. A person mounted on an Auto-Bi does not encounter the features of uphill climbing, the hard pushing against the wind and the unpleasant condition of being thoroughly soaked with perspiration. It takes out all of the work and puff and push, and leaves nothing but plain, easy, gentle riding, which can only be compared, in our imagination, to a bird flying.

"We have a large repair shop, and the men who do the work in this shop are there because they know what to do. There is nothing to be guessed at in our repair shop. It requires more skill to repair a machine than it does to build one. Here's where it requires 'the man behind the gun.'

"No other store in Bristol County has so many fine phonographs and records; and our store is so arranged that it is just as convenient as it can be for our lady customers to hear and select records.

"Our stock includes, also, exercisers—the kind that makes muscle, makes you strong

and affords recreation. We have baseball goods that are attractive in quality and various in prices. We have gas lamps, gas mantles, incandescent burners, and all kinds of supplies that go with them.

"Your scissors or knives can be sharpened, or keys fitted, while you wait. Walk right into the store and say so, and we are at your service.

"This spring we have made a decidedly new addition to our various stocks. We are aiming to please the popular taste in music. We have almost every standard song that has been whistled or sung, at 10 cents a copy, and they are bright, new copies, too. We are sending you a catalog with this, and any time you happen in the store just mention something about a sample copy that we are giving away to our customers.

"It is a constant study of ours to know how to make our customers feel welcome, and when they come in to buy we want them to feel as though the store was theirs and everything that is in it to be looked at. It is never too much trouble to reel off a

friends for themselves and for me. To begin with, these Indians are sent and guaranteed to be good by the Hendee Mfg. Co., of Springfield, Mass., and no manufacturing company has a better reputation for reliability, promptness and cheerfully making good anything that is unsatisfactory to their patrons.

"Three years ago Mr. Hendee, whom I have known personally nearly twenty years, wrote me that he wished to send one of his Indians to Fall River on trial, and that if I did not like his Indian he (Mr. Hendee) would pay return ticket, etc.

"I wrote for the Indian to come.

"The Indian came, and before that Indian was in my store an hour one of E. S. Brown & Co.'s employes came in and adopted him. This first Indian made friends at once, and I had to send for two more. From then until the present day my patrons have continually asked for more and more of these good, trusty Indians, and now there is a large and growing tribe of them in Fall River.

"I can most confidently recommend these Indians as most trustworthy, strong and reliable; they are fast and speedy, and it will cost only \$25 to own and keep one."

Must Report Second-Hands.

Under a ruling which has just been made, Minneapolis, Minn., dealers who purchase second-hand wheels will have to make daily reports of their purchases, giving to the police a full description of the wheels bought. The corporation attorney has decided that dealers in second-hand bicycles must make these reports as well as pawnbrokers and the proprietors of second-hand stores. If they refuse, they can be compelled to take out licenses.

The police adopted this rule because many of the wheels stolen are disposed of to bicycle dealers. As the dealers make no reports, it is difficult to locate stolen wheels that are sold to them.

Motor Tricycles Reduced \$140.

To clear out their Orient tricycles, with 2½ horsepower De Dion motors, the Waltham (Mass.) Mfg. Co. have reduced the price from \$450 to \$310. There are but a limited number of the machines, so that at the reduced figure it becomes a case of "first come, first served." The Orient tricycles with 3¼ horsepower Aster motors will continue to list at \$450, but value is added by the fitting of the new free-clutch mechanism.

Keeping Tabs on Swindlers.

The German Home Office has compiled an alphabetical list of doubtful foreign firms which try to come in communication with firms to swindle them of goods. The list contains over a thousand names from fifteen European and seven American States, besides eight other countries. The list can be inspected at headquarters of all Chambers of Commerce by all legitimate merchants. No fee is charged for the inspection.

Blaze at Reading.

The Acme plant of the American Bicycle Co. at Reading, Pa., was slightly damaged by fire last week. The blaze, which is supposed to have been the result of spontaneous combustion, started in the enamelling room, which is separate from the main buildings. The flames were soon extinguished.



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

phonograph record of some interesting melody; nor do we intend that you shall go away dissatisfied as to price, quality or quantity, when it comes down to a purchase.

"We are in business to please the public, because we are here to do business with the public. A dissatisfied public is a poor customer, and we have been in business long enough to know this. We may appear selfish in making this statement, but you'll find we're pretty apt to say what we mean and mean what we say. Always ask for a cash register check, for it means a 5 per cent discount.

"We can talk English, French and German."

"Another of Wilmot's clever concoctions deals with the Indian bicycle, which he handles, among others. He heads the circular "A Good Indian Story," and proceeds:

"I have a story to tell of a growing tribe of Indians that have been coming to Fall River during the last three years, and I can assure you that all good Indians are not the dead ones, as some one has been heard to say.

"The Indians I have brought to Fall River are good and reliable, and have made many

The Retail Record.**FIRES.**

Batavia, Ia.—D. Y. Kennedy.
Salem, Ind.—Reid & Peck, slight damage.
Seattle, Wash.—Mitchell, Lewis & Staver Co.

NEW STORES.

Avonmore, Ont.—S. Moss.
Durango, Col.—Bert Gartin.
Argyle, N. Y.—John Savage.
Cortland, O.—F. C. Williams.
Dalton, Mass.—James Finkle.
Old Town, Me.—J. A. Leavitt.
Glenville, O.—F. H. Henderson.
Rockford, Ill.—Tynan & Ward.
Saybrook, Ill.—O. B. Lawrence.
Menominee, Mich.—D. F. Poyer.
Silver Lake, Minn.—Frank Mikesh.
Brewerton, N. Y.—F. E. Bell, repairing.
Garrett, Ind.—Harry Cramer, formerly of Wabash.
Merrill, Wis.—B. W. Hicks, West Main street, repairing.

CHANGES.

Bloomington, Ill.—Kelly & Wells, retired from business.
Ann Arbor, Mich.—Michael Staehler, sold out.
Roanoke, Va.—William H. Hart, sold out.
Key West, Fla.—Asa Whittaker succeeds Charles J. Curry.
Hazleton, Pa.—Hazleton Machine and Supply Co., discontinued sale of bicycles and supplies, and turned over stock on hand to William Glover, jr.
Wheeling, W. Va.—Friedrich & Dillon, succeeded by Herman Friedrichs, at 1,523 Market street.
San Francisco, Cal.—Phil. B. Bekeart, succeeded by Phil. B. Bekeart Co., 114 Second street.
Albia, Ia.—Shinn & Moore succeed Thomas Elder.
Monona, Ia.—Neilings & Killen succeed W. H. Neilings.
Scotland, S. D.—Reich Bros. succeed Reich Bros. & Freier.
North Webster, Ind.—Dye & Miller succeed M. C. Dye.
Canon City, Col.—Watson & Bancroft succeed Watson & Comb.
Chanute, Kan.—F. Jones succeeds S. Winfield.
Ellsworth, Ia.—Jacob Digerness succeeds Eittreim & Digerness.
Grinnell, Ia.—A. Woodruff succeeds Anderson & Woodruff.
Barton Landing, Vt.—Andrew Robitille succeeds Mason Kimball.
Norwich, Conn.—S. J. Coit, removed to 21 Chestnut street.
Owego, N. Y.—C. H. Swift, hardware dealer, has added bicycles.
Old Town, Me.—H. M. Burnham, closing out bicycle sundries.
Berrien Springs, Mich.—Isaac N. Savage, sold out.
Rock Rapids, Iowa.—S. A. Feay has sold one-half interest in his business.
Gypsum, Kan.—Manning & Hall, Caleb Hall retired.

Downs, Kan.—J. C. Sample, sold out.
Silver City, N. M.—W. S. Cox & Co. have dissolved partnership.
Evart, Mich.—E. F. Birdsall & Co., E. F. Birdsall has sold out his interest.
Washburn, Wis.—Gilbert Olson succeeds H. C. Prudhomme.
Albert Lea, Minn.—J. F. Wohlbuter & Co., dissolved.
Albuquerque, N. M.—William J. Scott sold out.
Smithport, Penn.—H. H. Redfield succeeds F. A. Mason.
North Ontario, Cal.—Robert Weiss succeeds Klinot & Weiss.
Atlantic, Iowa.—Line Bros. succeed J. F. McGriff.
Laird, Minn.—G. W. Plank succeeds Plank & Keefe.
Stephen, Minn.—Russell & Strong succeed Russell & Peace.
De Kalb, Ill.—Roy Claxton succeeds James Wipin.

Sues Receiver Individually.

In the Court of Appeals at Albany, N. Y., last week, the suit of the Sager Mfg. Co., plaintiff-appellant, against Frank Sullivan Smith, defendant and respondent, came up for argument.
The plaintiff brought action against the defendant individually to recover the value of 750 bicycle saddles sold to the defendant. The latter claims that he acted merely as a receiver for the company that used the saddles, and consequently cannot be held personally responsible for the bill.
The appellate division, Fourth judicial department, reversed a judgment in favor of the plaintiff.
The Worcester Cycle Mfg. Co., of Middletown, Conn., was the concern for which Smith acted as receiver.

Why Arrow Claims Were not Paid.

The affairs of the old Arrow Bicycle Co. of Indianapolis, Ind., were touched upon incidentally last week in a case on trial in the Criminal Court of that city.
J. B. Sherwood, an attorney, is on trial for embezzling \$2,500 from Christian Schraeder, who was formerly the principal owner of the Arrow Co. Efforts made to purchase the concern from Schraeder were blocked by Sherwood, who claimed that \$5,000 was due him for professional services. Finally suit had to be brought against Schraeder by a lawyer representing certain creditors of the Arrow Co. to recover on their claims. The present case is still on.

Recent Incorporations.

Binghamton, N. Y.—Sectional Pneumatic Tire Co., with \$50,000 capital. Directors, E. C. Inderlied, B. A. Baumann and F. J. Baumann.
New York, N. Y.—Tube Bending Machine Co., with \$35,000 capital. Directors, L. H. Brinkman and D. E. Rianhard, of New York, and W. L. Rianhard, of Richmond Borough.
Trenton, N. J.—United States Tire Inflator Company, with \$125,000 capital, to manufacture automatic bicycle pumps, etc.

Light and Full Roadsters.

Years ago there was practically no dissent from the dictum that "light machines need to be favored." Proceeding on this assumption makers turned out light and heavy roadsters, recommended the latter and sold the former. No amount of warning availed to stem the tide running in the direction of light machines.

It was generally believed, however, that riders of light machines used them at their peril. They were all right under certain conditions, of course. With riders of light weight and possessed of more than common skill they were all right if used on city streets or park roads. But outside of these and the excellent roads found in the neighborhood of some highly favored localities it was little short of folly to forsake the full roadsters for them.

Some riders even went so far as to keep two machines. One, a heavy machine, was the standard mount. It was used for long rides over bad roads or wherever rough usage was to be apprehended. It was not as easy running or as fast as its stable companion, but with it under him the rider felt sure of coming home in the same fashion he had started out. That feeling of safety compensated the rider for the self-imposed handicap.

When the manufacturers really applied themselves to the task of turning out light machines all this changed. They were confronted with the necessity of building machines which would stand up under all conditions. Good roads or bad, light riders or heavy, speeding or pottering, all must be alike to it. If it failed under the most adverse conditions it fell short of being a practical machine, for it was certain to be put to every possible test.

This was the problem, and it was completely and promptly solved. Full or heavy roadsters figured in the catalogues for several years, and were even used to some extent. But the demand for them dwindled gradually, and finally died away completely.

Of course, there were still light machines and heavy ones. But the difference was one of equipment entirely, the stripped machine being the same whether it was to figure ultimately as a racer or a roadster. The fitting of lighter tires, saddles, pedals, chains, etc., and the denuding of brakes and other paraphernalia not absolutely indispensable made a racer out of what under different conditions would have come out a roadster.

Nothing but scientific building of the machines made this possible. A more judicious selection of the materials used, better and more intelligent workmanship, increased knowledge of the stresses frames and forks and other parts of the machine were subjected to—these made possible a lightening without a corresponding weakening of the bicycle.

To-day even the memory of light and full roadsters has almost passed away. Light machines are used almost universally, and few riders ever give a thought to favoring them.

BRITONS BRACE UP

Clear Skies Revive Their Spirits and Induce new Interest in Cycles and Motorcycles.

London, May .—Three weeks of fine weather have made a wonderful difference to the motorcycle trade, and some firms are quite busy meeting orders. A surprise to many is that there are very decided signs that the motor bicycle is about to become popular. Indeed, the Motor Mfg. Co., Ltd., report that they are selling a good number of these machines of the Werner pattern, and that there is much more demand for them than for motor tricycles. The dry roads tempt people to experiment with a type of machine which is hardly suitable for winter work, owing to the liability to side-slip. There seems to be every probability that for summer work the motor bicycle will find a great many adherents.

So far we have not had any dropped-frame motor bicycle suitable for ladies, but there are at the present time several tricycles made on these lines, and during the last week I have seen three or four lady motorists using such machines. In order to insure the necessary rigidity the frame should be very strongly made, and two of the specimens I saw certainly appeared to fail in this important particular. It also seems to me to be almost a *sine qua non* that motorcycles constructed for the use of ladies should be fitted with some convenient form of two-speed gearing and a free motor. The labor of starting some of the ordinary patterns now sold is much too great for most ladies, whereas if the motor could merely be started by the pedals and then connected to the machine through a suitable gearing this would be avoided. For the same reason it is advisable that a two-speed gearing should be adopted, because assisting a comparatively low geared machine up hill is not a pleasant occupation, nor over-graceful. A two-speed gearing would render this unnecessary, and would do much to enhance the value of motor tricycles from the point of view of lady riders.

I saw a specimen of an excellent two-speed gear, known as the Dupont, only this week. The device is being placed upon the market here by the United Motor Industries Ltd., at a cost of \$55, or, with an outer support for the clutch shaft—which support seems to me to be nearly an essential—\$59.60. The gear is very compact, and is of the epicyclicoid variety. At the high speed the whole of the mechanism revolves as if in one piece, but when a band is tightened upon the drum formed by the outer casing of the gear the internal wheels are set in motion and the speed reduced. In the central position of the lever the clutch is automatically thrown out of action, so that there is no fear of changing the gearing too suddenly, for before the band can be either loosened or tight-

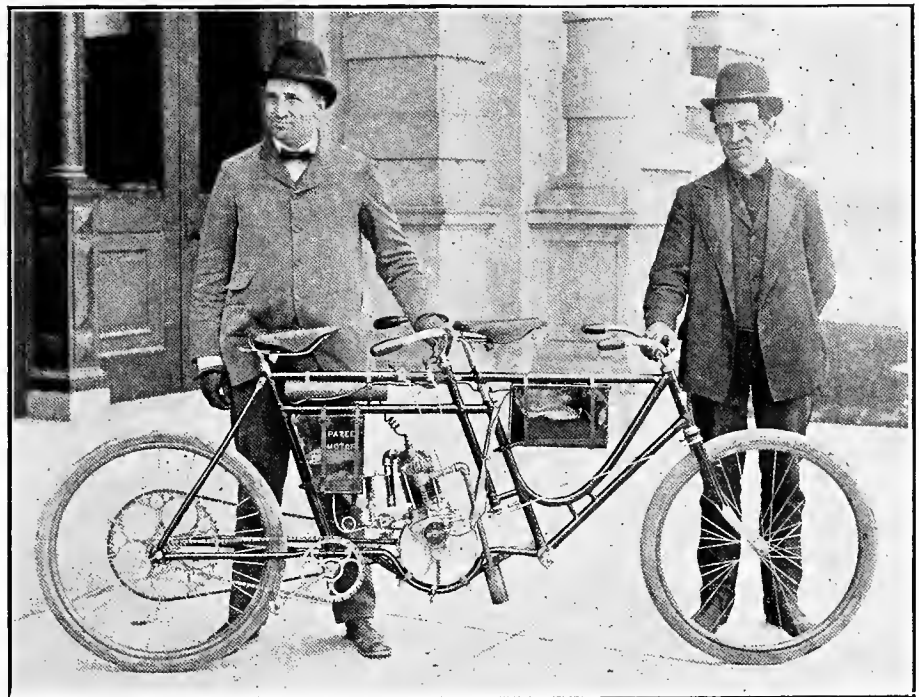
ened the clutch must be released as the actuating lever passes across the central position. If the lever be allowed to remain in this position the motor runs freely. The gearing can be most easily attached to any existing De Dion tricycle, and the shaft and clutch only reach from the main driving toothed wheel to a point under the induction coil and under the main axle, so that it does not take up any useful space. Experience has shown this to be a really first-class gear,

its powers to a customer, he renders himself liable. It is hard to imagine that this is really the case, but I am told that a summons has been issued against a local agent in the Midlands, and that the case will be carried through by the revenue people if possible. I should say that the Inland Revenue authorities will not be allowed to have matters all their own way, and that some trade protection association will take up the case and appeal against any conviction

Patee, Morris and Their Remodeling of Tandems.

Realizing the force of what the Bicycling World recently pointed out—that the fitting of motors to tandems would do much to repopularize the two-seater—the Patee Bicycle Co., of Indianapolis, have thrown themselves into the breach and announce that they will

climbed all grades met in a day's outing. Apart from the tandem, the picture is of interest as showing Fred Patee, the head of the company, and Joshua Morris, the inventor of the motor, Patee being the man with the dimples, at the rear of the machine.



make a specialty of rebuilding tandems and equipping them with Patee motors.

The accompanying picture shows one of the machines so remodelled, which is used in and around Indianapolis by two riders weighing a trifle over four hundred pounds. The Patee people say that it has proven faster than any motorcycle met with, and has

In remodelling these tandems they use either a new rear wheel entire or build a new hub fitted with a coaster-brake, 1/2-inch tool steel axle and No. 12 gauge motor spokes; reinforce the rear forks or put in new ones, as may be necessary; furnish the three horsepower motor, batteries, carburetter, spark coil and all fittings complete for \$200.

suitable alike for motor tricycles and quads, and also for small cars of the *voiturette* class.

The government people seem never to tire of persecuting the motorist, and now the question has been raised as to whether a man requires a license for every motorcycle in his possession. Thus it has been stated by some authorities that if an agent has more than one motor tricycle he must pay for each machine, supposing that he rides them. If he has them merely for sale he is not liable; but should he, in the course of selling one, mount it in order to demonstrate

which the magistrates will impose purely out of their hatred for motors, or, for the matter of that, anything that is new.

Making Tire Treads Thicker.

In view of the fact that durability is now one of the prime requisites of a bicycle, a prominent tire concern announces that it is putting a tread of greater thickness on its tires. This is merely a return to the early practice, which was departed from when the light-weight craze assumed such enormous proportions. With thicker treads it is held that the tires will last much longer,

Virtues of Light Oil.

Oftentimes your customers come in with some very queer questions about what are to you the simplest of matters, says a writer in a contemporary. Indeed, you are apt to look on them as wasting your time, for their inquiries seem actually silly. But if they cause you to think over things, and so find a reasonable reply, the exercise will not always be in vain.

On the squeaking of bearings, for instance, how many times have you been dragged from important work to explain the why and the wherefore of it to some dull-witted customer who cannot locate the annoyance and is inclined to blame your workmanship for it?

In a free-wheel clutch, how often you have had it demonstrated, and have been unable to cure it! You will find that usually in such case the use of very thin oil is the mischief. If you lubricate with slightly heated vaseline you will do away with the squeak. On the other hand, if you find one in which the springs will not act properly, before you blame the mechanism of the clutch try releasing them from the cloggy oil which chokes them. You can do this best by introducing kerosene or turpentine, giving them plenty, and not hurrying the job, and then start afresh with a very small amount of lubrication by warmed vaseline or else good quality lard oil.

This matter of cleansing the bearings of a cycle is touched on by some, and while a good word is given for kerosene, it is said that gasolene is far better for the purpose. By using it you save the trouble of draining out, which is necessary with kerosene, as the gasolene quickly evaporates and leaves no deposit behind. Stale gasolene answers the purpose as well as fresh, and is easily obtainable.

Then for cleaning and reviving the enamel on a machine it is said there is nothing better than gasolene. You can soak stiff mud with it and quickly get the cycle as clean as new. But when you tell your customers about these virtues of gasolene be sure and warn them to keep away from a naked light with the stuff, or there will be trouble.

Ideal Condition in Patent Matters.

At a recent meeting of the Society of Arts held at London a paper on "Patent Reform" was read by Alexander Siemens, a well-known electrical expert. The author considers that an ideal state of affairs will not be reached until the patent laws of all civilized countries were made identical on common-sense lines, so that a patent taken out in one country could be registered at the option of the inventor in all the others without further examination, and in the case of litigation the commercial use in one country should be recognized by all the courts.

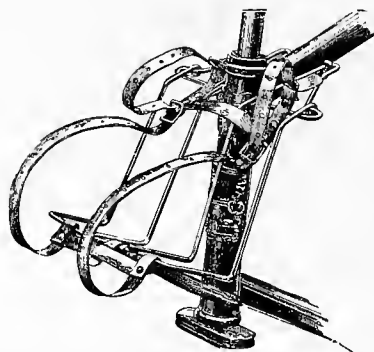
The Wilmot & Hobbs Mfg. Co. are erecting another huge addition to their already huge plant at Bridgeport, Conn.; the steel framework is already in place.

Dunlop Reconstruction.

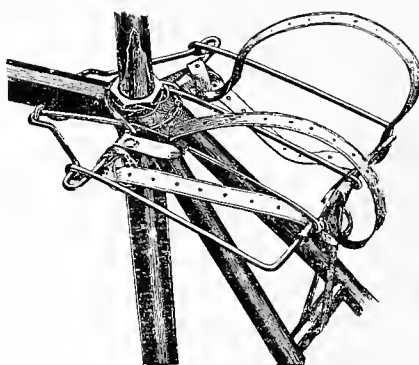
What may prove to be the first move toward a reconstruction of the Dunlop Tire Co. was slated to come up last week. At that time an extraordinary general meeting of the big tire concern was to have been held in London for the purpose of approving the purchase of a rubber manufacturing business. The directors appear to have regarded it a fitting opportunity to give consideration to the scaling down of the enormous capital of the concern. They recommended that the subject be taken up on that occasion.

Can be Used Fore or Aft.

Quite the most ingenious luggage carrier that has seen the light in some time is that just marketed by the Megquier & Jones Co., of Portland, Maine—the Peterson No. 2, they style it. The frame is made of stout steel



wire, nickel plated, and is attached to the bicycle by means of two steel hooks. It is of generous size, and the straps are of generous length, making it possible to carry a package of considerable size. It does not



interfere with the steering of the bicycle in any way; indeed, the feature of the device is that it may be attached at will not only to the head of the bicycle, but to the rear forks as well. The accompanying illustrations show it in both positions.

Japs Order Folding Bicycles.

Following upon the shipment to Japan for the use of the Japanese Government of twenty of its ordinary folding bicycles, the Dwyer Folding Bicycle Co., of Danbury, Conn., has received an order for a sample military folding bicycle. This machine differs from the diamond model in having a semi-dropped frame, somewhat like a woman's machine. It will be ready to ship in a short time, and it is said that if it is satisfactory an order for several hundred is likely to follow.

It Warms to the Subject.

Now and then a bicycle collides with a street car or is run down by an automobile, and the fact is reported in the newspapers; but, unless something of that nature occurs, the wheel attracts scarcely more attention than the buggy, says that luminary the Sun. Why is that the case?

The notion prevails in some quarters that wheels are not so numerous as they were a few years ago. This impression, however, is not sustained by facts. More wheels are in use now than at any time in the past.

As a pastime wheeling has probably declined. It has lost much of its froth—that is, the element that rushes into any new sport because it's fashionable, which some years ago, for instance, filled the town with roller-skating rinks. The dudes and the mashers and, as a Brooklyn police captain once called them, the "wild-eyed idiots," who scorch on parade to the peril or discomfort of everybody else on the highway, have lost their zeal. Present-day wheelmen are out for their health, but the majority of them are out for business. Throughout the length and breadth of the land the bicycle is looked on as well-nigh indispensable as a means of locomotion.

No Longer an Issue.

How many riders are there to-day who know or care whether their machines have brazed or seamless front forks? Very few, it may be said with positiveness.

Yet only a few years ago this was a very live issue. Brazed forksides were looked upon with horror, and no maker was courageous enough to admit that he ever used them. He might do the latter, but he was very careful to conceal the fact. The difference in cost was sufficiently great to prove a temptation to use the brazed sides, and more makers did this than was generally supposed.

It must be confessed that the feeling against the brazed tube was largely a matter of prejudice. It was cheap. That was the front of its offending, and as cheapness was something that nearly everybody decried against it was only natural that forksides should be included in the clamor. Yet it is an open question whether they were not in some respects superior to the weldless variety. The seam gave them greater rigidity, which was just exactly what was needed.

Methods of Manufacture now.

The firm recently organized at Binghamton, N. Y., by W. L. Bundy for the manufacture of the Binghamton rubber pneumatic bicycle tire has begun business in Water street. The dies and moulds have arrived, and from now on for a considerable space of time attention will be given almost exclusively to the making of experiments, in order to ascertain just what methods and makes of material are best suited to the manufacture of the tire.

After this period of experimentation the firm will begin making tires for the trade and place salesman upon the road.

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CUSHION FRAME

Motto.

The CUSHION FRAME is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold **WITHOUT IN THE LEAST DETRACTING** from the **SPEED** or **POWER** of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy, "get there" riders who at first "scoffed" the idea of **COMFORT** being combined with "speed and power" in a bicycle.

HYGIENIC WHEEL CO.,**220 Broadway New York.**

Owners of the Cushion Frame Patents

The Week's Exports.

Antwerp—20 cases bicycles, \$500; 23 cases bicycle material, \$570.
 Amsterdam—6 cases bicycles, \$351; 3 cases bicycle material, \$110.
 British East Indies—33 cases bicycles and material, \$2,656.
 Bremen—9 cases bicycles, \$366; 3 cases bicycle material, \$261.
 Baden—1 case bicycles, \$150.
 British Anstralia—108 cases bicycles and material, \$4,320.
 Bilbao—2 cases bicycles, \$70.
 Brazil—8 cases bicycles and parts, \$229.
 Baambrugge—4 cases bicycles and parts, \$227.
 British Guiana—2 cases bicycles and material, \$107.
 British West Indies—4 cases bicycles and material, \$74.
 Copenhagen—1 case bicycle material, \$38.
 Central America—1 case bicycle material, \$25.
 Carunna—1 case bicycles, \$20.
 Dutch East Indies—1 case bicycles and parts, \$175.
 French West Indies—2 cases bicycles and parts, \$60.
 Hayti—1 case bicycles, \$18.
 Havre—131 cases bicycles, \$2,390; 17 cases bicycle material, \$481.
 Hamburg—182 cases bicycles, \$5,608; 55 cases bicycle material, \$2,039.
 Haarlem—25 cases bicycles and parts, \$545.
 Liberia—3 cases bicycles, \$99.
 Lausanne—21 cases bicycles and parts, \$914.
 Liverpool—53 cases bicycles, \$1,146; 41 cases bicycle material, \$2,000.
 London—582 cases bicycles, \$5,579; 63 cases bicycle material, \$4,565.
 Milan—1 case bicycles, \$50.
 Malmo—3 cases bicycles, \$92.
 New Zealand—127 cases bicycles and material, \$3,486.
 Newfoundland—14 cases bicycles and material, \$577.
 Rotterdam—211 cases bicycles, \$2,355; 21 cases bicycle material, \$478.
 St. Petersburg—3 cases bicycles, \$302.
 Stockholm—5 cases bicycle material, \$415.

Returning to the Old Love.

Fond recollection, as the poet pointed out, plays an important part in our lives, and we have another illustration of it in the revived interest in the wheel on the part of many persons, a Chicago dealer is quoted as saying recently.

It is a common thing for a man to come into the store and say: "My wife and I have been thinking over what we shall do for recreation this summer, and we have got out our old wheels to look them over. We have concluded the best thing we can do is to take to bicycling again, for it is inexpensive and healthful. We won't have to get a lot of costly clothing, nor put up at high-priced hotels. It will be an innocent pleasure that we can enjoy at our convenience, and at the end of the season we will be the better for it, instead of worse."

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Accommodate
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Children**

—we do more than extend the seat post.

All Elfin Juvenile Bicycles are equipped with the Reversible Crank Bracket which adds years to the life of the Bicycle.

It is not enough to extend the seat post—for the child soon outgrows the Bicycle.

No other Juvenile has reached the sale or is so widely known as the Elfin.

No market is too distant or no country so remote but that the fame of the Elfin has brought sales there.

Purchase a catalogue with a two-cent stamp affixed to your letter—and incidentally ask for the agency.

Our nearest Distributing Agent is only a few miles from you. Send for his name.

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Jones Co.,
Maker,
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If you are looking for the best **DRY BATTERY** on the market, buy the **DOW**, and accept no other. For catalogues and price list send to the DOW PORTABLE ELECTRIC CO. Offices: 218 Tremont St., Boston, Mass.; 1135 Broadway, New York, N. Y.; Lippincott Bldg., 12th and Filbert Sts., Philadelphia, Pa.; 160 Washington St., Chicago, Ill.

The Week's Patents.

673,861. Mechanically Propelled Vehicle. Justelle B. Cummings, Falmouth, Me. Filed Aug. 16, 1900. Serial No. 27,098. (No model.)

Claim.—1. In a vehicle of the class described, the combination with the oppositely located wheels, of the carrying frame pivotally suspended between said wheels, and provided below its point of support with a hanger portion and above said point of support with an extension having crossbars parallel to each other and the axis of the wheels and disposed respectively at opposite sides of the vertical plane of the pivot, and extended beyond the rims of the wheel, substantially as set forth.

674,015. Bicycle-Bearing Dust Protector. Joshua E. Ragsdale, Fresno, Cal. Filed April 26, 1900. Serial No. 14,377. (No model.)

Claim.—In an improved dust protector and in combination with an axle, and a wheel hub mounted thereon, and a sprocket wheel having a wide annular channel of shallow depth in its face, said wheel mounted on the hub, the protector consisting of a cap having a central opening for the axle, a bent portion inclosing the end of the hub, and a wide vertical flange fitting the channel in the sprocket wheel, but out of direct contact with the inner periphery thereof, the outer face of the flange being substantially flush with the outer face of the sprocket wheel whereby the overhanging wall of said channel prevents ingress of dust to the bearing.

674,027. Sparker for Gas Engines. John G. Snyder, Green Island, N. Y. Filed March 9, 1901. Serial No. 50,427. (No model.)

Claim.—1. A sparkar for firing gas, formed by the combination with a fixed piece provided with an insulated conductor, and a sparking lever having one arm thereof heavier than the other and pivotally supported by a piece which is adapted to have a reciprocating movement in relation to the contact end of said insulated conductor, of a source of an electric current described, a return wire connected with the said source of electric current, and a suitable receiver of said current, and a current-supply wire connecting said insulated conductor with said source of electric current, whereby a single spark may be produced as and for the purposes set forth.

674,029. Igniter or Circuit Breaker. William G. Stolz, Brooklyn, N. Y. Filed Feb. 5, 1901. Serial No. 46,043. (No model.)

Claim.—1. In an igniting device, a contact point or points, a circuit closer, and a rotatable wheel or disk having two corrugated or serrated surfaces extending respectively on a plane above and below the plane of the periphery of the wheel or disk, and means upon the circuit closer to operate in connection with the corrugated or serrated bearing surfaces, substantially as and for the purpose set forth.

674,030. Electric Igniter for Explosive Engines. William G. Stolz, Brooklyn, N. Y. Filed Feb. 5, 1901. Serial No. 46,044. (No model.)

Claim.—1. In an electric igniter, a suitable insulating disk, an insulating wheel, a conductive ring with cam connected to the wheel, suitable brushes in connection therewith and a pin or contact device in circuit with the igniter and brushes and located in the path of one of said brushes so as to form the circuit should either or both of the brushes fail to act, substantially as and for the purpose set forth.

674,034. Speed Governor for Explosive Engines. August Krastin, Cleveland, Ohio. Filed June 14, 1900. Serial No. 20,233. (No model.)

Claim.—In explosive engines the combination with inlet valve, cage of a casing arranged in open relation with said cage, said casing having a side opening, a perforated, partitioned sleeve registering with said opening, a fuel-supply barrel with a perforated portion extending into said casing, a piston located in said barrel and arranged to control the perforations therein and suitable means for moving said sleeve and piston in unison, all constructed and arranged substantially as and for the purpose set forth.

674,082. Bicycle Attachment. William Eastman and William H. Sayer, Adams, Ore. Filed Dec. 26, 1900. Serial No. 41,156. (No model.)

Claim.—1. A bicycle attachment including spaced arms adapted for attachment to the frame of a bicycle, a roller carried by one of the arms and adapted to run against one side face of a rail, a shoe pivoted to the opposite arm, and a roller carried by the shoe for engagement with the face of the rail opposite to the engagement of the first roller, said roller being movable with the shoe to a point above the rail to pass intersecting rails.

674,196. Cycle. Giulio Rusconi-Clerici, Milan, Italy. Filed Aug. 30, 1898. Serial No. 689,862. (No model.)

Claim.—The herein-described safety bicycle having two oppositely arranged seats, driving mechanism for said bicycle, a steering fork having its spindle or stem provided with a double-grooved pulley, one portion of which is arranged above the other, an arm loosely mounted at its middle on said spindle or stem, a brace arm rigidly connected to a head on the steering fork, located below said arm, two handle bars having depending stems rotatively carried at the opposite ends of both arms, pulleys located respectively in the horizontal planes of the portions of said double-grooved pulley, and bands connecting said double-grooved pulley and said other pulleys.

674,199. Cycle Saddle. Arthur Cuthbert, London, England. Filed April 26, 1900. Serial No. 14,470. (No model.)

Claim.—1. In a cycle saddle, the combination of a flexible saddle cover, forward and rear supports for said cover, a longitudinally arranged tie, means for pivoting one end of the tie to the saddle cover at a point between the seat portion and the forward support, means for pivoting the other end of the tie to the rear of the saddle, and inflexible links connecting the tie and the sides of the saddle forward of the cantle plate; substantially as described.

674,218. Driving Gear. Octave Robert, Paris, France. Filed Aug. 14, 1899. Serial No. 727,174. (No model.)

Claim.—In a driving gear, a driving shaft carrying a gear wheel, a driven part likewise carrying a gear wheel, a framework, a tubular transmission shaft extending in the direction from one gear wheel to the other, axially aligning, spaced stationary studs or axles secured to the framework, pinions supported on said studs exclusively and meshing with the adjacent gear wheels, compensating unions between said pinions and the tubular shaft, ball-bearing cones on the studs, balls held between said cones and the pinions, and means carried by the studs, for locking the bearing cones, the said studs extending through the pinions and into the transmission shaft, and the latter being supported wholly upon the studs, through the medium of the pinions.

674,251. Automatic Tire-Inflating Apparatus. Tilman H. Anderson, Indianapolis, Ind. Filed July 7, 1900. Serial No. 22,813. (No model.)

Claim.—1. An automatic tire-inflating ap-

paratus comprising an inflatable tire, an oblong bulb inclosed in the tire and attached thereto at two opposite sides thereof and unattached at two opposite sides thereof intermediate the attached sides, a conduit connected at one end thereof to the bulb near one end thereof, a head plate provided with an eye and secured to the end of the conduit within the bulb, a spring connected with the eye and having two arms extending along the unattached sides of the bulb, a receiving valve for the conduit, and an outlet valve for the conduit communicating with the interior of the tire.

674,279. Bicycle Brake. Marion L. Nichols, Westfield, N. J. Filed May 27, 1900. Serial No. 18,225. (No model.)

Claim.—1. A band brake having the tip of its pivoted end extended and in resilient engagement with a fixed part, whereby said tip acts to throw the band out of engagement with its drum.

673,900. Electric Battery. David H. Darling, jr., New York, N. Y., assignor to the United States Battery Co., same place. Filed Oct. 11, 1899. Serial No. 733,724. (No model.)

Claim.—1. A battery cell embracing the following elements: A containing jar or vessel having an enlarged upper end provided internally with a grooved shoulder and means at the bottom of the vessel for holding or securing the lower end of one of the electrodes; in combination with a sealing cover sustaining the upper end of said electrode and resting, when in position, upon the before-mentioned shoulder; together with a second electrode sustained against the inner surface of the jar or vessel; one or more vent tubes extending through the cover and an adhesive medium located in the groove between the cover and the shoulder, and adapted to effectually seal the upper end of the jar or vessel and secure all of said parts in permanent position, substantially as described.

This is a Sailor's Bicycle.

The difficulty sailors experience in navigating on dry land is proverbial. Perhaps that is the underlying cause of the appearance of a bicycle with a new steering principle, the invention of a Copenhagen (Denmark) sea captain.

This machine, it is said, has the advantage of being under more complete control by the rider than the old-style wheel. This is due to the fact that it is pivoted at about the middle of the frame instead of at the steering post, the handle bars, however, being attached to the steering post.

When the handle bars are turned in steering the motion is communicated to both wheels at once, thus enabling the rider to turn abruptly without danger of falling.

The greatest difficulty of learning to ride a bicycle, as all riders know, is in overcoming the natural tendency to turn away from the side to which one seems to be in danger of falling. This difficulty is obviated in Captain Isboy's invention. The rider turns as he would in walking, and as abruptly as he pleases. A fall, he asserts, is next to impossible.

By pulling out a rod at the point where the frame is pivoted the machine is readily separated into two parts, making it more convenient for storage or shipment. This point is dwelt upon as a great advantage for military purposes.

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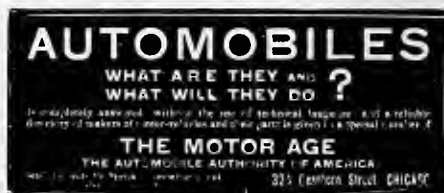
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The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., May 30, 1901.

No. 9

FAILS TO FRIGHTEN

Syracuse Defendants Unruffled by \$200,000 Suit—Now Working on 1902 Models.

Syracuse, N. Y., May 25.—The principal topic of conversation in trade circles here is, of course, the imposing-looking suit of the American Bicycle Co. against E. C. Stearns and his associates.

While popular opinion cuts no figure in the legal results, it is interesting to note that the trade generally is almost a unit in the belief that the A. B. C. haven't the slightest chance to prove any of their numerous contentions, and seem disposed to regard the whole matter as another of the dubious steps of the Trust, of which there have been more than one example.

The whole trouble seems to lie in the fact that just as soon as the old Stearns agents learned that the same management with which they had been accustomed to deal were at the head of the Stearns Bicycle Agency, and in a position to supply them with a line of wheels that could, to say the least, fully replace the Trust product, they came over in almost a body, with the result that the Bretz Cycle Mfg. Co., who manufacture the principal brands for the Stearns Bicycle Agency, were fairly overwhelmed with business.

Fortunately the capacity of the Bretz factory is very large, and they have turned out a very large number of high-grade wheels. It is believed that the loss of such a heavy volume of gilt-edged business has made the Trust very sore; hence its resort to legal measures to try to stop it.

The condition of affairs does not seem to worry the Stearns Bicycle Agency in the least. Mr. Herbert E. Maslin was as unruffled and courteous as ever when the Bicycling World correspondent asked if he had anything to say regarding the matter.

"We're too busy selling bicycles to talk about it," was all he would say, and then he added: "There's nothing in it."

The appearance of the office and the number of men employed in the factory certainly bear out the first statement, while the fact that work on next year's models is in progress, the 1902 model of the Wolff-American being actually shown the Bicycling World

man, makes plain that Mr. Maslin and his associates are not losing any sleep over the outcome of the suit.

Mr. E. C. Stearns was seen at the office of the Stearns Automobile Co., where he divides his time between it and the Stearns Steam Carriage Co. When bicycle matters were touched upon he stated that his new cares more than took up his mind, and barely smiled when the A. B. C. was mentioned.

The progress of the suit will be watched with interest, but it is not believed that the object, which is alleged to be to influence or "scare" the Regal and Holland agents, will meet with any degree of success.

Griggs Gives up.

Arthur Griggs, one of the best known dealers in New Haven, Conn., filed a petition in bankruptcy late last week. Although doing an apparently good business, he got into deep water and the pressure of creditors forced him to apply to the court for relief.

His schedule places his liabilities at \$9,629.88, as follows: Taxes, \$85.59; wages, \$55.55; secured claims, \$3,967.51; unsecured claims, \$5,521.23. The assets, \$10,522.85, are made up as follows: Real estate, \$4,825; cash on hand, \$102.20; stock in trade, \$2,400; household goods, \$200; baags, \$25; debts due on open accounts, \$1,795.65; machinery and tools, \$200; books, \$25; dues due on open acerty claimed to be exempt, \$225.

Bearing on Bankruptcy Claims.

Advices from Washington of date May 27 say the United States Supreme Court on that day ruled that the creditor of a bankrupt who has received part of his claim on account prior to bankruptcy must surrender to the assignee of his debtor all the money received by him within four months next preceeding the date of bankruptcy before he can have his claim put on an equality with those of other creditors. This, said Justice Peckham, was the meaning of the law. The case was that of Carson, Scott, Pirie & Co. vs. the Chicago Trust Co., and came from the Court of Appeals for the Seventh Circuit.

Diamonds in Detroit.

The Diamond Rubber Co. have opened another branch, this time in Detroit, at 310 Woodward avenue. W. M. Perrett will be in charge, and H. M. Snyder, well known to the Michigan trade, will travel the territory.

KEIM AND CROSBY

A. B. C. now Points its Bottom Bracket Patent at Them—Other Suits in View.

But little has occurred of late to ruffle the sea of cycle patent litigation. Even the bottom bracket suits are little heard of. They drag their way along slowly, and the end is not in sight.

Last week, however, new interest was injected into the matter by the institution of two more suits against alleged infringers of the Smith bottom bracket patents. This action was taken by the American Bicycle Co. against the Crosby Co. and John R. Keim, both of Buffalo, N. Y., in the United States Circuit Court for the Western District of New York, Judge Hazel sitting.

The complaint is practically the same in each case, to wit, that each has been and is making, using and selling parts of bicycles covered by patents secured by William E. Smith, of Washington, D. C., and owned by the American Bicycle Co. An injunction in each case is asked to restrain the defendants from continuing the alleged infringements and also an order is requested to make the defendants pay to the complainant whatever money they have received as the result of using the appliances.

The Crosby Co. is a member of the Cycle Trades Protective Association, Mr. Crosby being its treasurer, and that organization will no doubt undertake the conduct of the defense. John R. Keim, however, is not a member. This leaves four suits brought by the A. B. C. to enforce the Smith patents, two of them being against members of the C. T. P. A., viz., the H. P. Snyder Mfg. Co., of Little Falls, N. Y., and the Crosby Co., and two against unaffiliated concerns, viz., the Eagle Bicycle Mfg. Co., of Torrington, Conn., and John R. Keim.

To a Bicycling World representative Attorney A. M. Austin, of Redding, Kiddle & Greely, counsel for the plaintiffs, when asked if further suits were contemplated, smilingly said that he declined to answer. He stated that the defendants have until the first Monday in August to file their replies. Consequently, the suits are not like to come to an issue until the early fall months.

He further said that the taking of foreign testimony in the Eagle and Snyder suits had been finished. The defendants are now engaged in taking testimony in this country.

WIN WOMANKIND

This, Holds one Man, will do More Than all Else to Advance Motocycles.

London, May 15.—While few were on exhibition, from what I can gather, the trade in motor bicycles at the Motor Car Show, which closed last Saturday, was rather in excess of what was expected, and the three firms exhibiting each did a fair amount of business. For some reason the Werner appears to be first favorite, but I fancy that the Singer is not far behind, and in the end will become the more popular of the two on account of the extreme ease with which it can be manipulated. Indeed, any rider with sufficient nerve can master the machine in five minutes.

The sales of ladies' motor bicycles of this type have not been so good as they might be, but I feel sure that this is only owing to lack of confidence, and that, as the ease with which the machine can be handled becomes appreciated, many of the fair sex will venture upon it. At present it appears to have only been attempted by the more expert lady riders, and in every case with success. Only yesterday, for example, a lady correspondent took a trial trip on the machine with complete success, and is shortly going to ride it on the road. She tells me that she did not find it any more difficult to manage than a free-wheel cycle when first that type is tried—but then it must be remembered that the lady is peculiarly expert, especially under difficulties. Nevertheless, I fancy that the time is approaching when the motor bicycle will become more or less popular with those ladies who can afford it.

If only the trade could induce a few well-known lady cyclists to habitually ride motor bicycles it would do more to advance the pastime than anything else. Consider the tremendous stride which cycling generally made when lady riders first took to the bicycle in real earnest! I feel sure that the same thing will occur when ladies take to the motor bicycle, but there must be a beginning. In some respects I think that the ladies are the more important customers, and that it would pay to give them a good discount or to make dropped-frame machines at a less cost than diamond-framed mounts for a little time, because the motor will put the lady rider in an equal position with the male motorist, and greatly in advance of that of the ordinary cyclist. When a young man whose fancy may have turned to thoughts of love finds that the dear girl and her motor are some ten miles down the road he is likely to conclude that he had best get a motor, too, and so the loss on the lady's machine can be made up on the gentleman's. It may not sound businesslike, but there's a lot in it. The average man does not like to be left, and especially by a lady, and he will find the cash somehow when there is a tangible object in view. It is only the cash

difficently which is keeping the motorcycle back at the present time.

The motor tricycle seems not to have improved its position to any great extent, and I must confess that I am rather surprised that the reported business in these machines has been so comparatively small. The tricycle of ordinary pattern appeals to a great many people, and would do to more were it not for the extra work involved. For many people the motor tricycle is an ideal machine, speedy, easy to manage and not requiring a coach horse. Its cost is the stumbling block, I am afraid. The trade in quads, was also by no means satisfactory, but this I put down to the competition of the voiturette, which vehicle appeals to a great many people more than the quad, for the money asked for which latter they cannot see value. Moreover, the quad, is not a very comfortable machine, especially over rough roads.

Tire Fluid Combine Dissolved.

The association or combination of tire fluid manufacturers who banded together to defend themselves and their patrons against litigation growing out of the Duryea patent has been dissolved by mutual consent. Each of the former associates will defend himself and his customers in his own way.

The Duryea or Neverleak patent, as is well known, is the property of the Buffalo Specialty Mfg. Co., who are now using it most aggressively. The initial suits which the opposing makers combined to defend have been the cause of long and continued warfare in and out of print; each side has been continually daring the other to come on and fight to a finish. The Neverleak people won one suit and got a sweeping decision by default, but the "other side" maintain that that was not the suit on which they rested their case—and there you are! The trade has witnessed few bitterer fights.

Will Present Thirty-one Affidavits.

Following the bringing of suit for \$200,000 against the Stearns Bicycle Agency and others, the American Bicycle Co. will make a motion before Judge Cox, at Utica, N. Y., on June 4, asking that the defendants be restrained from marketing the Regal bicycle. Affidavits for the motion will be presented by Colonel George Pope and C. V. Tuttle, of New York; Edward J. Day, of Chicago, and twenty-eight others.

Designed to Help Advertisers.

When it adjourned Congress had in hand the draft of a bill which will enable advertisers to send out return envelopes of a kind enabling customers to use the envelopes without stamps, and the postage shall be paid for by the advertiser when the envelopes are returned with inclosures.

Same Old Story.

The total of England's cycle exports for April shows no improvement over previous months; the shipments during the month attained a value of £40,595, which compares with £44,834 in March last and £42,742 in April, 1900.

SWINDLERS SKIPPED

Their "Generous Offer" Enough to Make Mail-Order Houses Turn Green for Envy.

Although the people of the city of beans and culture have a worldwide reputation for 'cuteness, it has been more than once demonstrated that it is not the most difficult matter to fool them.

The latest case of this kind has just been run to earth. The Truman Hay Co. was the well chosen name under which the concern operated. On the first of the year it opened a store at No. 268 Tremont street, Boston, Mass., and it appears to have done a lucrative business since then. Incidentally, it found a few people who wanted bicycles, but desired to obtain them cheaply.

The Hay Co.'s method was to advertise quite extensively, principally in country papers, telling of the rare opportunity for the public to make a purchase with but little money. Their first offer was to send to any one a silver plated spoon or butter knife for three 2-cent stamps.

On the receipt of the stamps in some cases the household articles were forwarded, together with three circulars. One circular stated that two bottles of perfume and four pieces of silver would be forwarded to any address for \$1, while for \$2 more perfume and a talking machine worth \$35 would be sent; for \$3 they offered to forward to any one a bicycle and more of the perfume. The bicycle was supposed to be worth \$50. The butter knife and spoon which some received looked very nice, and came in a beautifully satin-lined box.

The Truman Hay Co., so far as Inspector Snow was able to learn, never filled an order for the other articles, although the firm in many cases received the money to do so from people all over the State.

The members of the firm, for several are thought to be in it, have made their escape.

Shaw Blames the Weather.

George E. Shaw, who from 1897 to the first of the present year was a manufacturer's agent for cycle material at 35 Warren street, and since then has been in the auction business at 257 Fifth avenue, made an assignment last week to Isaac H. Dreyfuss. The auction business was conducted under the name of the Metropolitan Auction Rooms. G. A. Heaney, his attorney, said that the assignment was caused by the bad weather of the past month, which hurt the auction business. The liabilities are between \$4,000 and \$5,000, and actual assets probably \$3,000.

Want Royal Plant.

Negotiations are on foot looking to the acquirement of the old Royal bicycle plant, at Marshall, Mich., by a concern that will manufacture novelties and possibly bicycles.

THEIR BOLTS SHOT

**Department Stores no Longer Formidable—
Swan Songs as Sung by Their
Bicycle Salesmen.**

There are few clouds without a silver lining, and the trade finds that even prolonged depression has its alleviations. It is relieved from the ruinous competition of the cut price department store.

These stores—such few of them as are left in the game—make slight pretense at the present time of maintaining their old commanding position. There is but a slight trace left of the aggressive tactics which were formerly pursued with such striking success. They tacitly admit that any marked advantage over the regular bicycle stores which they formerly possessed has passed from them. Consequently, the majority of them have ceased to carry bicycles.

A visit which the *Bicycling World* man paid to a couple of such stores recently dispelled any doubts of the truth of these remarks which might have been entertained. For the seeker after bargains there was little to attract. Machines advertised as such could scarcely deceive any one. They told their own tale even to inexperienced buyers.

At O'Neill's, bicycles designated by the firm's name and advertised as being made by the "best manufacturer in the world" were on view. There were two long rows of them, one of drop and one of diamond frames. Evidently business was not very brisk, for no salesman was in sight, and it took some little time to find one. This notwithstanding it was Saturday afternoon. The salesman was a free talker, even if his scope was somewhat limited. He readily volunteered what information he possessed.

"The bicycle we advertise? Yes, that is it, and a fine one, too. It has our own name plate, but it is manufactured in the Hartford factory by the Columbia people. It is made by them especially for us, and is an elegant wheel. Just the same as the Columbia stores sell for \$30. Yes, this one is \$23.98. Same for the drop frames. We make no difference in price, but treat all alike.

"Are they 1901 patterns? Oh, yes. This is the first year we have handled them. They were made to our order, and are all new goods. We don't carry any other makes. There's no money in them any more. A good machine like this is what the people want, and we are ready to give it to them," he rattled on.

Save for the fork crown and the crank hanger construction, the machine bore not the slightest resemblance to the product of the famous Connecticut concern. They were plainly of the \$25 grade of machine seen at almost any cycle store. At some of them the price would be shaded—probably reaching \$20 in a few cases. Still, they were fair

value for \$23.98, although not especially striking in any respect.

The tubing was of large size, larger than is generally seen now. The design and details of construction were, if not entirely beyond cavil, at least not such as decided exception would be taken to. The seat post and handle bar fastenings were of the internal type, the sprockets were large—possibly a trifle too large—and the equipment was of a medium character. In the case of the pedals it was below this, and the saddles were nothing to be proud of. The finish, upon which especial stress was laid, was good, but not exceptionally so. In short, the machine was priced pretty nearly right.

The next objective point was Seigel-Cooper's. Here a sale of Fowlers—those perennial cycles, which appear to come from nowhere in inexhaustible quantities—was advertised. The price smacked strongly of old time department store methods—\$15.50. At or about this figure these machines have lingered long, and, if appearances go for anything, there is still considerable lingering in them.

Even the salesman seemed unable to enthuse over these ancient relics. He did not hesitate to say that they were the last of the brood, and that when they were gone no more could be obtained. But he was not communicative on the subject of how many there were in this lot, nor did he seem confident that they would soon be gone. He was merely hopeful.

The factory was not making bicycles any more, he imparted to the *Bicycling World* man. They had a fire out there—last December, he believed it was—which had put a period to its career as a cycle factory. The machines were guaranteed "for the riding season," but he skilfully evaded the question whether this meant the first of the year. Nor did the fact that there were no parts in existence trouble him. That was a difficulty easily surmounted.

"Any parts will fit them," he said. "There's the crank hanger construction, for example. It's made by the Thompson factory, out at Cleveland (sic), and you can easily get a new one from them. Same way with the hubs. Any hub will fit this machine. Or the handle bars or other parts. You don't have to use Fowler parts."

It scarcely required this explanation to make it plain that the machine was assembled from job lots. The saddle was enough. It was of an archaic type, popular on cheap machines some three or four years ago, and it must be admitted that the remainder of the machine reached a higher level than the saddle. Of the tires, pedals and other equipment the least said the better.

"Now, here's our leader," the salesman finally said, evidently seeing that the "bargain" had not made a very good impression, and turning to another machine. "It costs \$22.50, and is the latest model. It has inch tubing and all the latest improvements."

It proved to be an entirely different class of machine, as was asserted. Of good de-

sign, it is well known to the trade, and is sold by plenty of dealers at figures differing very slightly from those asked by the big department store.

In sundries the same tale is to be told. Prices were low, but not unduly so.

In fact, some of the stores on Nassau street are beating the big store at its own game, while plenty of regular cycle stores are meeting their prices on many articles. A prominent make of cyclometer was offered at 75 cents at Siegel's, and at 69 cents at one Nassau street store. A well known lamp was offered at \$2 for either the oil or gas pattern. Another was \$1.45 for the oil and \$2.25 for the gas type.

Foundation Motor Patents in Court.

In motor matters litigation has heretofore played but a small part. This has not been due to any lack of material upon which to base legal proceedings; on the contrary, there has been a superabundance of such material. It has rather seemed as if the parties concerned were awaiting a favorable opportunity to begin the attack.

Apparently that opportunity has presented itself, for the English courts have lately been busy with three suits of considerable importance. They related to the Maybach float-feed carburetter, the cam system of contact breaking and a particular style of induction coil, respectively. In each case the British Motor Traction Co. appeared as the complainant, it being the British representative of the De Dion-Bouton interests, that concern using these inventions. The actions were completely successful.

The cases came up in the Chancery Division before Justice Kekewich, and the disputants were represented by an array of legal talent usual in big cases of the kind, headed by the redoubtable Fletcher Monlton, K. C. The action was brought by the British Motor Traction Co., Ltd., against John Vaughan Sherrin, an engineer, to restrain infringement of the plaintiff's three patents. The defendant admitted the infringement, but denied the validity of the patents.

Decision was given in favor of the plaintiffs on all three patents, granting the injunctions asked for, with certificates of the validity, an inquiry as to damages, delivery up of infringing articles, and costs.

Store Closed, Partner Gone.

The store and repair shop of Howes & Premo, School street, Webster, Mass., is closed and Warren F. Howes has disappeared. Two protested checks given by him for \$60 and \$25, respectively, are left in the hands of a hotelkeeper and a tailor.

Repairman's Heavy Liabilities.

Edmund L. Wheeler, of Hartford, Conn., formerly in the bicycle repair business, filed a petition in bankruptcy last week. His liabilities are placed at \$3,640.58, with \$3,040 assets, of which latter amount \$150 is claimed to be exempt.

What Cheapened Bicycles!

It is a number of years now since the wonderful tale was floated relating with great circumspection how this country was to be flooded with bicycles of Japanese make to retail at or near \$13 each. As standard makes were then quoted at over the \$100 mark, it is easy to understand the havoc that an influx of Oriental machines would have created.

Many things have happened since then, not the least of them being the bringing down, by successive stages, of bicycle prices to a point within appreciable distance of the figure referred to. But in all that time no hint of any Japanese invasion has had anything solid behind it; in fact, even the hints long since ceased to be heard. On the contrary, the live little Japs have taken not a few bicycles of American make, and appear to like them. Even their admitted imitative qualities are not equal to the task of seeing American bicycle makers and going them one better.

Such is the understanding of the matter common to those who think they are "in the know," viz., cycle tradesmen. But it appears that this is all a mistake. The tradesmen aforesaid do not know anything about it. There was a Japanese invasion, it forced the formation of the "bicycle combination" and the latter had to buy up the bicycles of Japanese make and foist them on an unsuspecting public as goods of their own manufacture.

Such is the wonderful story which appeared recently in the metropolitan daily which takes Old Sol for its eponyme. To be sure, it is credited to a New Orleans paper, the Times-Democrat, but that is a detail.

The Japanese, says this highly interesting story, pick up everything the moment it is big enough to stand alone, and often too quick for others.

The bicycle riders are under many obligations to the Japanese for the present prices of wheels, which are, on an average, about one-third what they were four years ago.

This was brought about by the Japanese manufacturing a lot of wheels which were to be thrown on the American market at a reduced price. The American manufacturers, who are in a combination, bought them all up and sold them out as unnamed American wheels, and thus postponed the inevitable for a couple of years. The price has got to such a point now that there is no opening for another Japanese interference.

Another Alliance Suggested.

It seems that a combination of British quality and American method would produce an ideal article, says an English paper, commenting on a recent dissertation on the subject of tires. Great emphasis was laid on the advantages of molded tires, it continues, and it was maintained that by the combination of good design and workmanship American manufacturers were enabled to turn out tires of good appearance and finish, and with a lower class of material than could possibly be used in the old-fashioned methods of hand manufacture, and, of course, at a much cheaper rate.

Wasting at the Bung.

It is the little things that count, as has been so often said, yet dealers continue to neglect them. An instance is related illustrating the point of this aphorism, where the neglect of a little matter brought dire retribution in its train.

A friend of ours inquiring where he could obtain a decent repair outfit, we recommended him to an agent in the neighborhood of his domicile, says the narrator. He proceeded thither, and while making his purchase was favorably impressed with the appearance of a 1901 lady's wheel. The next day, however, he came to us and complained that the repair outfit he had purchased was absolutely useless—the rubber had perished and the solution was quite hard. The next thing we heard was that our friend had bought a bicycle for his wife—but not at the store of the above-mentioned agent. That repair outfit had cost its vendor the profit on a new machine!

Self-sealing Tire Catches on.

New life has been infused into an English concern manufacturing a self-sealing inner tube by an arrangement which the Dunlop Tire Co. has entered into, under which these tubes will be fitted to some Dunlop tires. The tube is understood to have stood up very well under actual use, and has been on the market for several years. The power of the big tire monopoly has heretofore prevented anything being done with it.

\$25 REWARD

For information about Dealers using or handling
infringing TIRE FLUIDS.

WRITE FOR CONDITIONS

Neverleak

AND GLINES' LIQUID RUBBER ARE
THE ONLY FLUIDS THAT CAN BE
LEGALLY USED IN PNEUMATIC
TIRES.



The average business man believes in decency and fair play in trade, and usually respects the rights of others. Unfortunately there are exceptions and we are looking for those exceptions. Our inspectors are out getting evidence against infringers, but as they cannot cover the ground thoroughly for some time, we make the above offer, particulars of which will be mailed on application. The following constitutes an infringement:

Any person or concern selling or using any liquid not authorized

or made by us, in any pneumatic tire, infringes our patent rights, and is liable to serious trouble and expensive litigation.

This applies to any private individual, repair man or dealer, whether he injects a liquid into his own tires, into the tires of others, or makes or sells such liquid for others to use or sell. It applies to any free-flowing liquid, semi-liquid or substance capable of being converted into a liquid, no matter what such substance or liquid is made of.

BUFFALO SPECIALTY MFG. CO.,
BUFFALO, N. Y.

NEVER HAD AN EQUAL.

Competent judges say that the Pan-American Exposition will be superior to anything of its kind ever seen on this continent, and it is within 12 hours' ride of over forty million people. How can it fail to be a success when you consider that it is reached from all directions by the

NEW YORK CENTRAL LINES,
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For a copy of the New York Central's Pan-American Exposition Folder, "Four-Track Series" No. 15, send a postage stamp to George H. Daniels, General Passenger Agent, New York Central Railroad, Grand Central Station, New York.

THE BICYCLING WORLD
FOUNDED 1877
and **MOTOCYCLE REVIEW**

In which is Incorporated
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Change of advertisements is not guaranteed unless copy therefor is in hand on SATURDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, MAY 30, 1901.

Let's Lynch Him!

One of those wise gentlemen who is paid by the Government for forecasting the weather conditions promises that June will be just as wet and nasty as the two months that have preceded it. Who'll lead the lynching party?

The Fittest Survives.

The survival of the fittest in cycling publications is now an accomplished fact.

The first, and therefore the oldest, the *Bicycling World* has alone weathered the sun and the storm of nearly a quarter of a century, and is now the only cycling publication in America devoted solely to the interests of the cycle and allied industries.

The last of its competitors has succumbed to the inevitable, and this week lets itself down easily by transforming itself into a monthly. All of the others had previously served themselves in the same fashion by engrafting automobilism onto themselves and endeavoring to make the automobile tail wag the bicycle dog, so to speak.

The *Bicycling World* will continue to move

for the cycling interests alone, and to move weekly, as for nearly twenty-five years past.

Mail-order Bicycles Self-convicted.

When a man or firm undertakes to explain his or their ability to sell goods at less than reasonable market prices the explanation rarely fails of interest.

When a man or firm dares to say that he or they are enabled to sell bicycles at cut prices because he or they had had the bicycles manufactured during the winter—the winter, mind you—when bicycle factories are dull and labor is cheap, it is the essence of politeness to call that man or firm a fool, a liar and a knave, and then all three rolled into one.

In the world of intelligence all men know that it is in winter that bicycle factories, like nearly all except ice factories, are busiest, and that then it is that labor is in greatest demand.

In their catalogs and letters the mail-order house of Sears, Roebuck & Co. make much of their honor, uprightness and responsibility. In the same publications and communications they explain their ability to sell 80,000 or 100,000 so-called high grade bicycles at cutthroat prices on the grounds stated.

Lie is not a pleasing word to use in type, but to apply another term to the statement would be to miscall it.

The lie, so brazenly put forward in big black type, being so luminously apparent and so easy of proof, what other statement made by Sears, Roebuck & Co. shall be accepted as truth?

That lie alone fixes the standard of the mail-order bicycle for all time.

In the face of it all other support falls. What matter if Sears, Roebuck & Co. and their kind, despite mammoth stores and big bank balances, chatter, in print and out of it, of their honor, their financial worth and the "high gradeness" of their bicycles? They can have no excuse or defence for their statements. The lie can scarcely have been advanced in ignorance. Sears, Roebuck & Co. are too old and too foxlike for such belief. Like all lies, it was put forward to deceive, and deliberate deception is but a degree of fraud.

It is but one specimen of the deception and fraud that characterize the sale of the mail-order bicycle. The business or game reeks with it. Fraud or deception is on nearly every page of the mail-order catalogs, and it is to be found in and between the lines of

their advertisements and communications.

On another page we have gone into a critical review of the methods in vogue. It is a lengthy review, but it sheds a flood of light on the methods that prevail, and deserves the careful reading of all who are interested in the well being of the cycle trade. It affords the very ammunition which the cycle dealer has lacked to fight the mail-order plague. He need not fear to use it. He should use it as a matter of self-defence.

The mail-order people make a great ado about their honor, about the quality of their bicycles and about the generosity of their terms. But let such questions be put to them as the *Bicycling World* caused to be put to Sears, Roebuck & Co., and their silence will explain itself more eloquently than the tongue of the most gifted orator who ever gave voice to words.

In their "warnings" and counter "warnings" the rival mail-order houses lay bare the frauds which each calls to its aid. The offering of bicycles in payment for the distribution of catalogs, the use of once more or less famous nameplates on spurious and unknown bicycles, the stamping as high grade of bicycles that are known to come from notoriously cheap factories—these and the many other frauds, the warnings, the scare cries of "Beware of the other fellow! He's a liar, a thief and a swindler"—these cries expose the rottenness of the game.

Generally speaking, the mail-order bicycle is in the category of gold bricks and green goods. It is marketed by the "come-on" methods that appear to hold so much allurements and fascination for the agricultural classes, and until, therefore, a Society for the Protection of Farmers and Chore Boys is brought into being and becomes universal, gold bricks and mail-order bicycles will doubtless continue to be sold. But reputable cycle manufacturers and more particularly retail dealers in the smaller communities can lessen the sale by exposing and disseminating the exposure of the lies and frauds practised by mail-order houses. We believe we have pointed them out so clearly that all may see and understand.

Looking After Little Things.

Little things influence trade more than the average dealer is willing to admit.

The customer who comes in for a piece of tire tape and is treated with indifference, if not with positive neglect, is not apt to get a favorable impression of the place.

It may be his first visit, and if when he comes to make use of the tape—perhaps somewhere out on the road—he finds that its adhesive qualities are almost nil his opinion of the dealer would not be easy to express in parliamentary language. He is pretty sure to register a mental vow to go elsewhere next time.

The dealer himself may not be aware of the lack of attention displayed by his employees. They are, he believes, both competent and conscientious, and he leaves the details to them.

If an inkling of anything wrong ever comes to his ears he makes amends in every way possible. But frequently it is too late, as he has lost good trade and there is not the slightest chance of getting it back.

Much better would it have been if the dealer had kept an eye on the little things. Buyers like to feel that they are not left entirely to the mercies of subordinates. The slightest attention from the head of the concern gratifies them and they depart well satisfied.

We have watched a clerk stand idly by while a customer tried to lead a tandem out of a narrow door and became very much mixed in consequence. A sharp call from the proprietor, who had noticed the occurrence, caused the thoughtless youth to jump forward and hold the door open.

The look of annoyance passed from the tandem owner's face, and he delivered his thanks ostensibly to the clerk, but really to his employer, as he passed out.

Nowadays a rider will not put up with as much discourtesy and lack of attention as formerly. His attitude is a more critical one than it used to be. He wants good treatment, and if he can't get it at one place he will try another. Sometimes he will give the whole thing up in disgust.

No salesman can be too particular or too attentive. In the eyes of both employer and customer he will find favor in proportion to his willingness and politeness.

Prejudice to be Overcome.

Few things are more difficult to accomplish than to eradicate prejudice.

The fact that it is frequently ill-founded does not make this eradication any easier. Frequently it has the effect of increasing the difficulty.

We have made it a practice of late to enter into conversation with stranger wheelmen met by chance, and to obtain their views on subjects of interest to them and

the trade. Such talks have made it clear that prejudice is responsible for the stand taken by many riders regarding present day machines.

The chainless machine is the cause—or shall we say victim—of much of this prejudice.

When it first appeared on the market it was far from being a perfect machine. It was heavy, and it did leave something to be desired in the direction of smoothness of running. Other flaws could have been picked in it by riders not exactly hypercritical.

But such shortcomings, which have almost invariably accompanied all radical departures, have been overcome. Improvements in manufacture, particularly in the matter of gear-cutting, have been so great that the chainless machine of to-day is almost as different from that of three or four years ago as is the chain bicycle from its predecessor of a decade ago.

Nevertheless, the impression remains that it is still in a formative state. It is still an experiment, a makeshift, a thing to be approached with caution and examined with exceeding care.

Have they got rid of that purring or grinding noise in the gears? one man asked us. Will they ever get the chainless to respond as quickly as a chain machine? inquired another.

When closely questioned they admitted, in the one case, that the knowledge possessed was based entirely on a few minutes' trial of one of the early machines; in the other it was hearsay only, and hearsay several years old.

Yet these men were honest in their prejudices. They had no interest in "knocking" this type of machine. They simply repeated what had become stock talk with them.

The chainless is simply taken as an example of the misunderstandings that may exist in the minds of wheelmen. There were others, almost equally glaring.

It would be a good work to remove or lessen such prejudices.

The Policy of Fake.

In order to get newspaper mention for the concern that employs him and thus earn his salt, the press agent of the American Bicycle Co. continues to "play it low down."

Not content with circulating an "indorsement" of A. B. C. bicycles by a physician who does not exist, this press agent has duped several reputable New York dailies into making fools of themselves. He sent

out and induced them to print the following rot:

"The splendid display of light, strong, graceful and handsomely finished bicycles made at the Paris Exposition last year by the American Bicycle Co. is largely responsible for the increased demand that has arisen in Europe and in England itself for Yankee wheels. They were a revelation to foreign riders, and the result has been a growth in the cycle export trade of the United States that has had much to do with the activity that characterizes the American trade this year."

As a matter of fact, known to any one who is even half informed, an "increased demand" for Yankee wheels has not arisen in Europe or in England. Our bicycles were known throughout the world and our export trade was at its height two years before the Paris Exposition opened its doors. The truth is not pleasant, but there is no use closing our eyes to it; the business has since steadily declined; it was nearly two millions less in 1900 than in 1899.

Another choice item emanating from the same source has this to say:

"A settlement of the affairs of the defunct Liberty Cycle Co., of Bridgeport, Conn., has been made. A dividend of ½ per cent on the general claims was distributed by the trustees. The claims amounted to \$204,904, and only \$1,025 was distributed. This is the last of the Liberty company, once the manufacturers of a very popular bicycle. When the market became overstocked this was one of many concerns that came to grief. The breaking of one concern threw thousands of bicycles on the market at less than cost and broke prices everywhere, driving still more of the weak concerns to the wall. It was against such a danger that the presence of the American Bicycle Co. in the field guarded agents later on, and it is this that makes that presence welcome to agents."

Again as a matter of fact, the "guarding of agents" as performed by the American Bicycle Co. is a Jekyll-and-Hyde performance. While the press agent fakes the papers and a portion of the public with such items as these, the company itself sells tens of thousands of bicycles to the mail-order houses, which sell them at demoralization prices that cut into the very vitals of the retail dealer, thus crippling him at the very time when his existence is almost at stake.

Such "pressworking" savors of the theatrical press agent.

If editors will but appreciate that they are being duped and made the means of spreading the grossest exaggerations and falsehoods, the fakirs will meet with the fate they deserve.

For the umbrella trade it probably has been the merry month of May. For nearly all else it has been a measly month of dismay.

HOW THE MAIL-ORDER GAME IS PLAYED

The Brazen Fraud and Falsehood and "Come-on" Advertisements and Circulars That are Employed—Well-known Nameplates on Unknown Bicycles—Rival Houses Call Each Other Liars, Frauds and Swindlers and Convict Themselves—Methods That Smack of Gold Bricks and Green Goods.

It is a great game, this mail-order business. In so far as it applies to bicycles, "game" is the proper designation; and a peculiar game it is, too.

Like the department store, the mail-order houses have no deep or permanent interest in the bicycle business. The future and the well being of the trade or of those engaged in it do not concern them a particle. They "squeeze their cards to the limit," as the expression goes, and play the game for small stakes, and only so long as the pennies are within their reach. As a rule, they play for and with those whom the vernacular describes as "easy marks." As is the case with green-goods men, the farmer and the chore boy are their dearest friends. If there were no farmers or no chore boys it is not a wholly rash assertion that there would be no mail-order houses.

SECOND HANDS SOLD AS NEW.

When the bicycles-by-mail game was young, and before such cut-throat prices as now prevail were possible, it is not entirely a state secret that one of the concerns engaged in it "made its price" in a peculiar fashion. It made a specialty of buying second-hand bicycles in large quantities and at low figures. The best of these were cleaned and scraped and then re-enamelled and nickelled; new tires and saddles were provided, a fanciful name created for the bicycle and forthwith they were advertised and sold—to farmers and chore boys—as new machines at then unheard-of prices. As a rule the farmer was none the wiser.

Whether the practice still prevails is not known. Since it was employed the prices of bicycles have come down until it is hardly necessary, as there are now factories that will turn out bicycles as cheaply as they are desired, while the superabundance of bankrupt stocks has proven rich "finds" for the mail-order people.

With the decline of sales the mail-order bicycle is cutting a larger figure than ever before in the cycle trade and compelling its more serious consideration. A study of the methods by which it is marketed well repays the time expended. It demonstrates that while some early tricks may have been abandoned, the mail-order game is still full of quirks and quiddities and barefaced lies. Within the last month the *Bicycling World* has devoted some time to quiet investigation,

and has found abundant evidence to bear out the assertion.

While some of the mail-order houses will not sell to residents of their own cities, they all angle for the farmer most assiduously. Their hooks—their catalogs and advertisements—are heavily baited with the word "free."

SOME OF THE "COME-ONS."

"Free catalogs," "ten days' free trial," "order two of our \$12.25 bicycles and sell the extra one at profit enough to get yours free," are samples of the bait offered, the word "free" always being in heavy black type. "Highest grade" is another string upon which they harp. Most of the mail-order houses sell several brands of bicycles at varying prices, most of them ending with odd cents. It is the cheapest bicycle, however, that is invariably advertised. It is the "come-on" of the game. But from the lowest to the highest price each is "strictly high grade," and everything about it is of the same "high grade." Mail-order catalogs fairly sag with the weight of that term. To any but a gullible yokel it is ludicrous.

Despite this slop-over of "high-gradeness," however, the mail-order houses are not agreed or at peace one with the other. Thus, Sears, Roebuck & Co. bubble over with warning to the "dear people." Here is warning No. 1:

"BEWARE OF OUR RIVALS."

"Look out for catchy bicycle advertisements! Don't be deceived by advertisements that show a very low priced bicycle, which is only intended to induce you to write for a catalogue, and when you get their catalogue you find the reliable, guaranteed wheels are high. Don't be misled by the 'agency' advertisements, offering to sell you a bicycle cheap, 'just to introduce their bicycle in your section and get you to take orders for their wheels.' Any one, agent or no agent, can buy the bicycle for the same price, as low as you can from such a firm, and their agent's net price bicycle won't compare in any way with our \$11.75 high grade."

Warning No. 2 "rings the changes" in slightly different fashion, viz.: "Beware of catchy bicycle advertisements. People who advertise bicycles at \$4.00, \$5.00, \$6.00, \$8.00 and \$10.00, and to catch your eye and get you to answer their announcements, will offer second hand wheels at \$2.00, \$3.00, \$4.00 or \$5.00, and when you answer their advertisement and get their reply you will find they ignore their offer made in the newspaper announcement; they make reference to second hand bicycles and offer you none, but urge you to order a bicycle at \$18.00, \$20.00 or \$25.00. The advertiser who will mislead you and defraud you into answering an advertisement wherein he says he can furnish you second hand bicycles at \$2.00 to \$10.00,

possibly new bicycles (late models) at \$3.00 to \$10.00, and then offers you nothing of the kind, but tries to sell you a bicycle at \$18.00 to \$20.00, will be just as clever in his efforts to defraud you in the kind, grade and quality of a wheel he would send you when he gets your money."

ONE OF THE TRICKS EXPOSED.

These are supplemented by a further and more tearful caution, as follows:

"We regret there are concerns of questionable reputation who sacrifice equipment, tires, bearings, hubs, tubing, etc., in their attempt to compete with our prices. We could do this and save several dollars on a bicycle, do this and send you a bicycle at \$7.00 or \$8.00; but we have a reputation established that must be maintained. We refuse cheap lot bicycle offers every day. We have bicycles offered us that look nice; but we can't guarantee them. We don't buy them. Other houses do, and they advertise them under glowing descriptions and at prices much higher than our guaranteed wheels."

WHERE THE TRASH IS STORED.

Whether these warnings are aimed at the Mead Cycle Co. is a matter for conjecture, but at any rate the Mead people issue a warning of their own, as follows:

"We do not believe in the trashy class of bicycles that are being advertised by mail order houses and represented as high grade machines, but if you have a demand for such bicycles, we will be glad to furnish them to you at \$10.75 each. There are at the present time stored in Chicago about 50,000 bicycles that have been made by a manufacturer who has done nothing but build wheels to be sold by mail order houses, auctioneers, etc., as high grade machines. These wheels will be unloaded on the public during this season by various mail order concerns, and, as the manufacturer who made them is now out of business, having failed very recently, it will be impossible to secure parts for them; and as the wheels themselves are of the cheapest possible construction, there will be even more trouble than usual for those who purchase that class of goods. In ordering a bicycle, either for yourself or for use as a sample, it will be well for you to satisfy yourself that the concern selling it is actually a manufacturer and in position to take care of the guarantee they make."

FRAUD IN NAMEPLATES.

Apparently to even up "warnings," the Mead people take another fling at their rivals in this fashion:

"Reputation and reliability of both the bicycle and its maker are points of vital importance to you. Many concerns selling bicycles claim to sell high-grade machines of well-known makers, when in reality the cheapest grade of wheels are being put out under the nameplate of a reliable manufacturer that has failed or gone out of business. Our customers are universally our friends,

as we give them exactly what we promise, and do not represent cheap bicycles as the highest possible grade. Nothing is so disappointing to an accomplished rider as to find a cheap, low-grade bicycle palmed off as a high-grade machine."

These "warnings" are full of meat. The cry and counter cry of "Wolf!"—the pot's calling the kettle black—lay bare the chief tricks of the respective houses and give a good insight into the methods which produce the "high-grade" mail-order bicycle and the spider-and-fly manner in which it is marketed.

Mead and Sears-Roebuck clash in other particulars. Both claim to be "the largest dealers in bicycles in the world." Indeed, Mead endeavors to get the better of the other fellow by stating in large type that he deals exclusively in bicycles—a high-sounding claim which is shattered by Mead's own circular letters. These all contain a postscript requesting the recipient to "send for our catalog of sporting goods, guns, etc."

THE "SEND-NO-MONEY" BAIT.

Of course, "free catalogs" containing "photographic engravings of the bicycles by our own artist" and "free trials" are but a part of the bait offered.

"Send no money" is another hook which dangles at the end of the mail-order line. It fools most of the people most of the time. In their smaller ads. nothing is said about it, and it is only by delving deep into a long-winded advertisement or catalog that it is learned that these mail-order bicycles are all shipped C. O. D. The prices, plus the express charges, must be paid the express agent before the bicycle will be delivered and the "ten days' free trial" be rendered possible. The guileless mail-order people remark, however, that "nearly all our customers send cash in full"—a procedure which, needless to add, they heartily "advise."

THE LIES THAT PROVE FRAUD.

This is merely one of the quirks of the game. The Sears-Roebuck catalog is full of them. Here is one of the choicest of the sort:

"Our big price reductions are made possible by reason of our controlling the output of the several factories that make these wheels. We take every bicycle that comes from the several factories that supply us, take the entire output, and to reduce the cost to manufacture to the very minimum we started in early in the winter when the most skilled labor could be secured at the lowest wage scale; we bought our material early when the tube mills, spoke makers and other manufacturers were not busy, and when we could get the highest grade of goods at the lowest price. We have taken advantage of all these conditions to turn out for 1901 the handsomest line of wheels that will go out of any house in this country, and at lower prices than have heretofore been known—lower prices than any dealer can buy in hundred lots."

The chore boy might read and re-read these assertions without suggestion of either smile or suspicion. To those who know anything whatsoever about bicycle manufacture the statements are so utterly false that the wonder is that such cunning people as Sears, Roebuck & Co. permitted them to see the light.

If that concern controls the output of one bicycle factory—much less the "several" from which it "takes every bicycle" that comes out of them—the factories must be deep in the backwoods and well shrouded in mystery.

WHERE THE BICYCLES COME FROM.

The Bicycling World, however, knows where very many thousands of Sears-Roebuck bicycles come from, and knows as well that the Sears-Roebuck statement that they control the output or "take every bicycle that comes from the several factories" is a gross misstatement of fact. The Bicycling World knows also that the product of some of the factories involved is not and never was classed or recognized as high-grade bicycles. If Sears-Roebuck ever purchased tubing or spokes for the manufacture of bicycles the fact remains to be proven.

Aside from these "quirks and quiddities" the Sears-Roebuck assertion that "early in the winter" the manufacturers of spokes, tubing, etc., are "not busy," and that then "skilled labor could be secured at the lowest wage scale," is an untruth and exaggeration unworthy even of them. Every one in the trade knows full well that it is in the "early winter" that every factory is busiest and skilled labor is reaping its fullest returns. It is in the summer that factories are idle and labor unemployed. The people who are caught by such chaff must be childishly simple not to know it.

If mail-order houses can advance no sounder reasons for their odd prices they rest on unstable foundations.

MISUSE OF KENWOOD NAMEPLATE.

To people familiar with the history of the cycle trade the appearance of a Kenwood bicycle in the Sears-Roebuck catalog is in the nature of a reawakening. This Kenwood, they explain, "is not a stencilled machine," but "has been on the market for the last ten years." A reprint of the old Kenwood nameplate and of a diploma which it received at the World's Fair in 1893 is also reproduced. "Since that date," according to the catalog, "it has been kept strictly in among the first rank of high grade bicycles by the manufacturer"—all of which will prove startling news to those who make or sell bicycles. As a matter of fact, few of them are aware that a Kenwood bicycle still exists. Its makers failed years ago, and the use of their nameplate on a mail-order bicycle at this time should be cause enough to make them blush.

BICYCLES "MADE LIKE WATCH CASES."

As if this was not agony enough for the original Kenwood, the Sears-Roebuck catalog states that it is second only to the Elgin King, which they also sell. The Elgin King is another bicycle which it was supposed had disappeared from the earth, but Sears-Roebuck say it is still made in Elgin, and at that "made like a watch case—made as no other bicycle is made." To further impress the farmers it is also related that the Elgin King was "the only \$10,000 bicycle ever built"—that bicycle being the remarkable

gold-plated, diamond-bedecked "freak" built for exhibition at one of the early cycle shows.

MAKING USE OF COLUMBIA FAME.

Without a twinge of conscience, Sears-Roebuck call the Columbia bicycle to their aid in this wise: As a result of the \$10,000 "freak," and according to the catalog, "an immense sale was secured and the bicycle immediately took and retained its place among the highest of high grade wheels of this country. The Elgin King and Queen bicycles (until last season when we secured control of the output) were always sold through regularly appointed agents, always under contract to maintain the highest price, the same price at which the Columbia and other high grade wheels sold, and not until we secured control of the output of this factory was an Elgin King or Queen sold at one cent less than the highest price secured for the highest grade wheels made"—all of which will prove astounding news to most of those who "grew up" with the bicycle business.

THE TRICK WITH TIRES

From the highest priced to the lowest, all Sears-Roebuck bicycles are fitted with "celebrated Clipper double tube tires," which are "covered by the regular association thirty days' guarantee"—whatever the "regular association" (association with a small a) may be. The reason these tires are used is because "while single tube tires are good enough for some houses to use, they are not good enough for our customers." Only the Clipper tire is mentioned by name. The rest of the specifications are as follows:

SICKENING GUSH OF SUPERLATIVES.

Frame—"Very best cold drawn seamless tubing"; cranks and shaft—"the very latest one-piece"; sprockets—"very latest style"; chain—"finest quality"; chain adjuster—"very latest style"; pedals—"extra high grade"; spokes—"very finest quality"; rims—"best quality"; saddle—"extra high grade full padded fair leather."

To the yokel this may be impressive; to the informed it is laughable.

HOW TESTIMONIALS ARE EMPLOYED.

Several pages in the back of the catalog are devoted to the testimonials of "satisfied customers." While there is a fair sprinkling of these in familiar places, the overwhelming majority write from out-of-the-way and practically unheard-of towns and villages. As none of the testimonials are dated, it is impossible to say whether they are old or new or represent an accumulation of years. The queer feature of the collection is that many, very many, of them testify to the merits of bicycles wholly unknown to the cycle trade, and which are not even listed or referred to in the Sears-Roebuck catalog in which the testimonials are printed.

QUESTIONS THAT REMAIN UNANSWERED.

A New Yorker who wrote for and received one of the catalogs noted these inconsistencies and had his suspicions aroused. He sought information of his friends, and then wrote Sears, Roebuck & Co. His letter was substantially as follows:

"Your catalog and letter are received and have interested me very much. A friend of mine who used to be in the bicycle business tells me, however, that the Kenwood Co. and the Elgin King Co. failed or went out of business years ago, and that their bicycles disappeared with them. As I am loath to believe that a house of your standing would misrepresent things, I prefer to await your statement. Will you please let me hear from you?"

"My friend also claims that you do not purchase tubing or spokes or control several factories, but that you purchase most of your bicycles from the Bicycle Trust. Is this true? Also will you kindly let me know whether you can furnish duplicate parts promptly?"

Although the catalogue and "come-on" letter were received four days after the request was mailed, this communication remains unanswered, although nearly two weeks have elapsed since it was written.

The natural inference is that Sears, Roebuck & Co. cannot answer the questions as they would like to answer them, and that they appreciate the Napoleonic maxim, "Be silent and you are safe."

Answers to the questions would, however, be uncommonly interesting and shed a flood of light on the ways and workings and claims of the mail-order houses, as least as far as bicycles are concerned.

MAIL-ORDER MODESTY.

The Mead Cycle Co. is another mail-order house, and apparently the one that gave cause for the Sears-Roebuck "warnings." The Mead people, however, are evidently more familiar with the bicycle business than their rivals. The Meads "purchased their material in the summer" and operated their factory in the winter, not indulging in any silly

prattle about the "wage scale of skilled labor," which they know is the same, winter or summer. They employ fewer superlatives than Sears-Roebuck, and their prices are about those that prevail in the legitimate cycle trade; they have cheap bicycles, of course, but they are content to style them "good bicycles"; they appreciate that all cannot be of the "highest grade." They play the "send no money" and "ten days' free trial" (cash on delivery) game, but whatever effect it has on the chore boys their literature does not give the cycle tradesman "that tired feeling" that follows the sickening gush of illogical "high grade" pother and exaggeration that oozes between every line of Sears-Roebuck printed matter.

ADS. THAT DECEIVE.

The Mead "come-on" also differs somewhat from the others. In itself, however, it is worse, and causes more disappointment. It comprises a little want ad. about as follows:

"Wanted—Rider agent to ride and exhibit sample 1901 model bicycle and distribute 1,000 catalogues in payment for it. Write for catalogue and particulars."

This naturally suggests that in return for distributing the 1,000 catalogs one will obtain a bicycle free of cost. It is a hook that will catch the chore boys and other youngsters every time, and must have been the means of dashing many youthful hopes to earth.

THE DECEIVER TALKS OF HONESTY.

Requests for catalogs and particulars bring several pamphlets, an order blank and a circular letter, which do not, however, con-

tain one word about "rider agents" or the distribution of catalogs. Instead the circular letter says:

"From the fact that you have written us in regard to our bicycles we are confident you are in the market for a wheel, and believing you to be honest and reliable, we will be pleased to receive an order from you for any of our wheels, without a cent deposit, provided you use the inclosed order blank, filling it out completely, and we will then ship the bicycle C. O. D. with the privilege of examination."

OVER-WEENING ANXIETY.

The recipient is then offered samples at "special agency prices," and after being warned against other mail-order bicycles is then requested, "if you are not in a position to order a sample by return mail, we will ask as a special favor to us that you persuade one of your customers or friends to send for one of these wheels at once, even if it is necessary for you to let him have it at cost. We are anxious to have a sample where you can show it, as we know it will result in more sales, and on our special examination and ten days' trial terms, it is impossible for your customer to get anything but the most generous treatment, while the ridiculously low prices we quote make this the most favorable opportunity of a lifetime to secure a bicycle."

Of such is the mail-order game. It is full of little twists and turns, catches and petty deceptions. Not even its best friends can say that it is strictly above board. The wonder is not that it succeeds at all, but that it succeeds so well. As far as it concerns bicycles, there is deception and disappointment at one end or the other, often at both.

Dealing With Second Hands.

"This talk of refusing to take second-hand bicycles in trade this year is all bosh," said a dealer to the *Bicycling World* man. "Everybody in the trade knows this, if they would only admit it."

"There may be—probably is—a tendency to go a little more cautiously about it than of old. Prices paid must be right and the number of machines taken in limited, or else the same disasters that have accompanied such trading in the past will make themselves apparent this year. But if a dealer steers clear of these pitfalls—and there is not the slightest reason why he should not do so—he will have no reason to complain."

"Here's an illustration of my assertion right here," he continued. "I'm just sending this machine out to a customer who bought it to-day. I took it in trade yesterday for \$5, and sold it for \$12. I spent about \$1 on it, fixing it up for the buyer, but at that I more than doubled my money."

"I don't mean to say that this sort of thing can be done every day in the week. Every dealer knows that such a claim would be absurd. On the contrary, I admit that this transaction is unusual, and I am satisfied to come out with a 25 or 50 per cent. advance as a rule. But the day has gone by when I make such sales for fun or per-

mit second-hands to remain in my possession for any length of time.

"There is this season a very fair demand for second-hands. I would not call it a good demand or assert that I am trading-in machines with any great freedom. But it is a fact that I am working off my second-hands with less trouble than usual. Buyers can be found if the dealer has the machines they want and the prices are right. For the matter of that, if the latter is not the case it is the dealer's own fault."

"If he takes in a bicycle on a basis that requires him to ask a good figure for it he is little short of a fool. There is only one way to do such business, and that is the safe way. The buying price must be low and the selling price not so very much higher. If the latter is advanced in order to make a big profit on it the dealer is almost as much to blame as if he had paid more for it than it was worth. The sale that I spoke of was an exception. I got the machine at a low figure, and I happened to catch a customer who wanted just what I was able to offer him. It will probably be a long time before I have another such chance."

"There is another thing you will probably notice. That is the greater prominence many dealers are giving second-hands this season.

You'll find them placed in the windows and attractively tagged. Consequently they are attracting attention. You will find people standing in front of the windows examining such wheels. Sales frequently result, too."

Columbia's Labor Troubles.

As a result of the machinist's strike the Columbia factory at Hartford has been shut down for an indefinite period. The men's demands were refused, and, as was stated last week, 500 of them struck; the decision of Manager Pope locks out the remainder. To add interest to the situation, the Columbia people are now in a snarl with the Typographical Union; they ran a "rat" printing office in connection with their business and the printers threaten action unless it is unionized.

Is Made in Sections.

The Sectional Pneumatic Tire Co., of Binghamton, N. Y., incorporated last week, is the concern recently organized through the efforts of W. L. Bundy, reference to which was made by the *Bicycling World* some weeks ago. The concern will manufacture a tire invented and patented by Charles Miller. The tire consists of separate sections, each section being inflated with air through one cock, and if any section is punctured all of the other sections remain inflated and the wheel is not disabled.

TOOL ROOM PRACTICE

Why too Much Attention can Hardly be Given Care of Tools.

In all large cycle manufacturing shops there are in use a quantity of small and valuable tools which it is necessary should be kept sight of, says a writer of wide experience.

Small tools such as reamers, cutters, taps, drills, etc., have a way of disappearing in a most mysterious manner, unless a proper system for their distribution is employed. It is necessary, therefore, that in all large shops the toolroom should be properly equipped, and, if possible, put under the charge of one responsible individual, or, if the shop is not large enough to warrant the expense of a separate attendant, under the charge of the shop foreman.

In no case should workmen be allowed to help themselves to the tools which they require, as this leads to their being lost or handed on to other workmen, without being first put back into the stores. In many shops a check system is used. Each workman is provided with a check bearing his number, and must leave the check in exchange for the tool he requires. In this way the toolroom storekeeper can keep a record of the men who are using certain tools, and they can be held responsible for them until returned to the stores and the check given back to the workman.

In some shops even greater precautions are taken to insure a proper use of the tools.

When the workman gets his ticket or order setting forth the job he has to do, the number of the special tools required are entered on the ticket by the foreman, and he cannot take out of the stores those tools without producing his work ticket. In some shops where tools are lost or destroyed the workman has their cost deducted from his weekly wages. This, of course, is an illegal course on the part of the employer, and would not be tolerated in English shops, though in America it is a somewhat common procedure, and the workmen apparently put up with it.

In the arrangement of the toolroom special racks should be kept for the tools. Each tool should bear a number, and its place in the rack should be marked with that number. A stock book should be kept in which all tools are entered, together with the date when they were first introduced, their description and cost, and the date when they were discarded through wear or other causes.

By this means the person responsible for buying has a record of his purchases which will greatly assist him in estimating the life of a tool, and also in deciding on the relative qualities and values of different classes of goods.

In addition to the entries enumerated above, all edge tools should have entered opposite them the different times on which they were ground. Special tools made in the

shop, such as jigs, cutters, etc., should have their time and material booked up against them, together with the name of the workman who made them. In this way a valuable guide as to the probable cost of any new tool or appliance can be obtained by comparison with tools already in use and the right men selected to make them, while the responsibility for bad work or fitting can be placed.

The man in charge of the toolroom should be himself a practical man, who understands the trade and knows the value and properties of the different tools he handles. He should also be allowed a certain freedom in going through the shops, so that he may observe if tools are properly taken care of by the workmen. Such ill usage as insufficient lubrication or too fast speeds or feeds might well be noticed by him and reported to the foreman, who would instruct the operator as to the proper adjustment. Such tools as twist drills should never be issued from the store unless properly ground, and it is found a good rule to insist on workmen seeing that they are ground on a proper twist-drill grinder before they are taken back into the toolroom.

All these precautions appear to be trivial, but they make the difference between a well-managed and a badly managed shop. It is one of the most annoying experiences to have to go hunting around the shops for some particular tool which is wanted for a job, and then when it is found to discover that it has been badly used, perhaps almost destroyed.

Gauges especially should be carefully cared for. If left lying about among other tools they are often liable to injury; especially is this so in the case of large calliper gauges, which may, by knocking about with other tools, be so much put out of truth as to cause the scrapping or returning of a quantity of work. When such a system as we have denoted is in use the workmen get to like it. It makes work easier for them, as the tools are always at hand when wanted and are always kept in good order.

In many shops it is found more convenient to run the toolroom as part of the general stores under the charge of the storekeeper. When this arrangement is adopted expense is, of course, saved, but where the shop is large enough to stand a central tool store it is as well to let one man have control only of that department.

Prospering at Seymour.

A number of improvements are being made to the plant of H. A. Matthews & Co., Seymour, Conn., consisting of the installation of additional machinery, etc. A new ten-ton punch press has already been put in position. The concern has had a very good business this season.

No More High Frames.

Extremely high frames, which were all the rage a few years ago, are seldom seen nowadays. Their day was a short one, and even the claims made for them of greater rigidity did not avail to keep them popular.

WILLIAMS'S TESTIMONY

Their Views of Workmen, Exports, and Trusts Given the Industrial Commission.

No one has ever been through the big drop-forge plant of J. H. Williams & Co., Brooklyn, N. Y., without being profoundly impressed with the superior intelligence displayed by those responsible for its management.

It is in the relations between employers and employes, however, that the Brooklyn concern is different from so many others. This was brought out very plainly last week in a hearing before the sub-committee of the Congressional Industrial Commission, which has been holding sessions in New York. Treasurer William C. Redfield of the Williams Co. was called before it, and he gave some very interesting testimony bearing on this point.

"I believe our success arises largely because, and not in spite, of the high and continuous wages paid our working force," he said. "We recognize thoroughly the intelligence, efficiency and goodwill of that working force."

"A man is more than a machine. The policy which treats him as a machine ignores one of the greatest factors in production, namely, human nature."

"A clean man produces more in the long run than a dirty man. A well-informed man produces more than an ignorant man. A justly treated man produces more than an unjustly treated man. A contented man is a better and cheaper producer than a discontented man. A well-paid man is a more economic producer than an ill-paid man."

"It would be well, when seeking to economize, to give less attention to the payroll and more in other directions."

As a result of ten months' experience recently as a salesman in European markets Mr. Redfield said he believed the fiscal system of the United States antagonized European dealers and limited the export trade.

"The European manufacturers," he said, "seem to think the United States is pursuing a policy of protection not for the protection, but out of pure selfishness."

To Mr. Kennedy, of the commission, Mr. Redfield said that the J. H. Williams Co. had declined to join the steel combine. He said he did not see how the combine could affect the business of his corporation at all.

"Does your concern purchase material from any of the corporations included in the United States Steel Corporation?" he was asked.

"Not now," was the reply. "Formerly, I believe, we did."

"What is your attitude toward such combinations?"

"We considered an offer to go into the combine for a day, and then told the promoter who met us that we would pay a premium to be left out."

GETTING THE SPARK

Where Quality in Motocycles is Essential— Batteries Need Nursing and Rest.

Apparently the problem of obtaining a thoroughly satisfactory battery to furnish the electric spark for a motorcycle is a simple one.

Electricity is an exact science, and the advances that have been made of late years in its applications are so marvellous that there is little more to be desired in this direction. Go to any electrician and he will tell you that the supplying of a suitable electric battery is one of the easiest things in the world. If you desire proof or a practical demonstration he will be quite willing to give it.

He will—particularly if he has had experience in furnishing batteries for motor work—bring forth a number of cells and proceed to back up his assertion. Dry cells they are almost certain to be—the greater convenience of this form, largely owing to their non-leaking qualities, being responsible for the selection. Making the requisite connections, he will produce sparks of an astonishing quality or “fatness.” Contact, wipe or jump sparks—they are all alike to him, so far as the ease with which they can be produced is concerned.

He will perform some astonishing feats with them. For the Bicycling World man's benefit one electrician produced sparks of a remarkable intensity. Holding the two wires almost a couple of inches apart, he caused a “fat” spark to jump from one to the other without the slightest difficulty. All the time he talked fluently and learnedly of volts and amperes, of the long life of the cells and their superiority over those of other makes.

To all appearances, nothing could be simpler than with these batteries—and there were others similarly recommended by rival concerns—to bid goodby to ignition troubles. It was plain, according to this electrician's confident statement, that any batteries which gave trouble were not supplied by him; that there was something radically wrong about them, and that it was very unusual to have trouble except from faulty wiring.

This view of the matter is not altogether unwarranted by facts. Most troubles with the ignition are caused by short circuiting, the running down of the batteries being a minor ill, easily cured by the replacement of the cell or cells by fresh ones.

But there are few motocyclists who have taken rides of any considerable length—say, a hundred miles, or thereabouts, straight-away—who do not feel impelled to dissent from this view. They have, they think, discovered the weak point of the electric ignition system. If called on for long, continuous service it fails to rise to the occasion. In other words, it must have a rest at fairly frequent intervals.

However inconvenient this may be, it is

not altogether surprising. One has but to picture to himself what, for example, a hundred-mile run without a stop means to a battery. Calculate the number of sparks it has to give forth, the constant demands made upon it, practically without interruption, for six or eight hours. Then the fact that it needs a rest will not seem so strange.

Take, for example, the ordinary door bell in almost universal use. Compare the work it has to do with that asked of the one affixed to a motorcycle. This will suggest a very good reason for the failure of the latter on some occasions.

The Bicycling World man dropped in on a prominent worker in the electric field recently just as he was renewing the battery for his door bell. How long did a battery usually last him? he was asked. Sometimes six months, or even longer, was the reply.



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

But suppose, was the next interrogation, some one were to take his stand on the door step and press the button continuously and as fast as possible for six or eight hours, what would be the result? A new battery would be necessary long before that time had elapsed, was the rejoinder.

Continuing on the same line, he was asked if there was anything surprising in the fact of a battery giving out in the case of a motorcycle run continuously, or almost so, for a hundred miles. Most certainly not, he replied, especially if the motor was run at high speed. Being told that the battery would be required to produce from six hundred to a thousand sparks per minute, he said that he could not understand how it would last that time.

In reply to this it may be said that batteries sometimes do stand such work, even if they are not called on to do it often. But then there are batteries and batteries. The cells can be bought for twenty cents or two dollars each, and three, four or five of them may be used, or some may be carried in re-

serve, to be switched in while the tired ones are recuperating. All this makes a great deal of difference.

At the same time, the motocyclist who, wishing to reel off a hundred miles or so with but a stop for lunch—or even none at all—should have some consideration for his poor battery. It is, if not human, at least subject to fatigue and entitled to some rest.

The motor, the carburetter, the cycle and the rider himself may be able—like the brook—to go on forever, but the battery must be treated a little differently.

Unless it is of the superlative order or there are some cells in reserve, it need excite no very great surprise if it should protest a little. Nor, on the other hand, need the rider look upon its failure as a certainty. Batteries have gone through such ordeals successfully, and will undoubtedly do so again. A deal depends on the quality of the cells and their number, to say nothing of the time they have been in use.

Exhibiting an Iver Johnson Feature.

Major Taylor has performed his mission abroad. He has compelled the mighty Jacquelin, the acknowledged champion of Europe, to inspect those new Iver Johnson forged rearfork ends as he (Taylor) desired him to inspect them.

On the occasion of their first meeting the Frenchman refused to look at the fork ends, and very disobligingly showed his back to Taylor in the two races which they contested. It was a cold day, and Taylor is never at his best unless the weather is warm. On Monday last this was the case, and as a result Jacquelin got two splendid views of the feature of the Iver Johnson rear forks. Taylor defeated him in two straight heats.

The Thursday before, Harry Elkes, Taylor's team mate, took occasion to show Watson Coleman the rear forks of his Iver Johnson racer at Washington, D. C. Coleman did not get a long look at them, however, as Elkes rode too fast, completing the twenty miles in world's record time—31.23—and getting under the records at five and ten miles as well.

Motor Bicycles and Their Making.

The fact that the Motor Cycle Mfg. Co., of Brockton, Mass., are now ready to consider applications for agencies is in the nature of a new Richmond in the field. They have been selling motors and accessories—and still sell them—but their finished motor bicycle has but just been announced as ready for agents. The bicycle, the Marsh, is no stranger, but it has been much improved since it was ridden from Boston to New York and return in August last, and well merits attention and consideration.

Motors and everything that goes to make up a motor bicycle will also be sold. The 1½ horsepower motor is splendidly thought out and worked out, and will attract notice anywhere. It marks an advance toward compactness and simplification, being but 4¾ inches wide and having remarkably few parts.

TREATMENT OF TIRES

How Repair Methods Have Changed—Air Type's Hold on Public.

From the very beginning of the bicycle the tire has been one of the most troublesome, expensive and aggravating parts of the entire machine. It has also been the most important part of the bicycle. Upon it has depended the comfort of the rider. Without it riding would have been robbed of almost all its pleasure, if not made altogether impossible.

Times have changed with the passage of the years, of course, and methods of attachment and repair of tires with them. The old solid tires on steel rims did not require to be pumped, to be sure, but they cut and stretched and came loose from the rim with distressing frequency, as if to make up for this immunity. The rider of that day had to examine his tires carefully before starting on a long ride lest they should leave the rim at an untoward moment. He had to carry string or tire tape with him for use in such a contingency. If he stopped for lunch he had to be careful not to leave the machine standing in the sun too long, or ice would be required to bring the cement to a condition where it would stick the tire to the rim, while not a few foresighted wheelmen kept at home a complete tire-cementing apparatus.

The repairer also—where there was one—regarded tire repairing as one of his most frequent jobs. He had his tire heater—usually a gasoline one—his rim clamps, his kettle for heating hard cement, his gasoline can for cleaning tire and rim, and other paraphernalia regarded as necessary. He varied the monotony of cementing tires to rims by cutting them in half, taking out the surplus material and making a splice of the two ends. Trying work it was—dirty, sticky and frequently unsatisfactory—for there was nothing harder than to make such a splice hold for any length of time.

With the coming of the pneumatic tire, repairing methods were revolutionized. Cementing to the rim became incidental to the repairing of punctures, cuts, gashes, etc. With the advent of the wood rim the cement kettle, the gasoline torch and accompanying tools were discarded by nearly all repairers. Liquid cements took the place of the hard variety, and have been used since with more or less satisfaction.

At the present time if the rider is of a mechanical turn of mind he will do the bulk of his repairing. A well-filled repair kit accompanies him on each ride. He acquires a considerable amount of expertness in the stopping of holes made in his tires, and rarely has to call on the repairer for assistance in such matters.

The bulk of riders, however, view the matter differently. Some from indolence, others from inability, make no attempt to do their

own work. For punctures as well as for vulcanizing jobs they seek the aid of the professional. If they pump their tires when this becomes necessary it is as much as they can bring themselves to do. Even this some of them balk at.

This state of affairs is quite to the liking of the repairer. He is kept busy fixing punctures, patching up cuts, vulcanizing serious cases. Long experience has shown him just what is needed for their various operations, and he has his tools right at hand. He is called on to do quick and good work, and unless he meets the requirements he cannot hold his trade. Consequently he takes no chances.

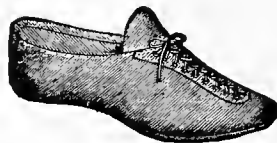
To-day the bicycle stands forth as a ma-

The Man to Call on.

Ever since cycle racing amounted to the proverbial row of pins, few men have done more to make the racing man comfortable



and presentable than S. B. Call, of Springfield, Mass. Whatever the racing man or other athlete has wanted, Call has supplied—shoes, sweaters, tights, trunks and every-



thing else of the sort. He carries a complete and assorted stock of up to date goods, and either dealer or racing man who has call or need for wares of the sort will do well not to overlook the Springfield veteran.

chine which seldom—sometimes never—needs attention. It may be used constantly or put away for a year; in either case it is ready to ride without there existing a necessity for an overhauling.

That is, excepting the tires. They deteriorate just as rapidly under disuse as under use. The cement dries up and becomes useless. The air leaks out in some more or less mysterious manner. These things have to be attended to before the machine can be ridden.

Perhaps the day will come when a tire will be brought out which will be as enduring as the remainder of the machine. But it is certainly not in sight. Besides—and here is really the crux of the matter—it would probably not be accepted if it were to make its appearance.

The pneumatic tire, with all its shortcomings, has a hold on the public that cannot be shaken. It is the acme of luxury, and for this the rider will sacrifice much.

PUT IT DOWN
IN

Black and White

There were never
made
better bells
than

BEVIN BELLS



Their fame does not rest wholly
in the fact that we've been
making bells since 1832.

OUR PROCESSES

have kept pace with the march of
progress and

OUR PRICES—

well, they must be known to be
appreciated. Do you know them?
If not, the fact that Bevin bells are
proving the best sellers of the year
should suggest that our catalog
and quotations are worth writing
for.

BEVIN BROS. MFG. CO.,

East Hampton, Conn.

COMFORT

with

SPEED

is the

CUSHION FRAME

Motto.

The CUSHION FRAME is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold **WITHOUT IN THE LEAST DETRACTING** from the **SPEED** or **POWER** of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy, "get there" riders who at first "scoffed" the idea of **COMFORT** being combined with "speed and power" in a bicycle.

HYGIENIC WHEEL CO.,**220 Broadway New York.**

Owners of the Cushion Frame Patents

Points on Tempering.

With tools of irregular shape, where the mass of metal is very unequal, cooling in oil is recommended as a much safer method than water, a practical man observes. With the right grade of steel it is possible to get absolute hardness with oil.

With oil hardening a very energetic operator is required. To obtain the best result the work must be moved about in the oil as rapidly as possible, so as to continually change the boiling oil round the heated piece for the colder oil. If this is not done the tool will be soft.

In water hardening a brisk movement is not necessary, beyond carefully raising the work up and down so as to gain a more even cooling. It is extremely unwise to plunge a good grade steel into quite cold water; in fact, the higher the percentage of carbon in the steel the higher should be the temperature of the water. For ordinary steel water at summer heat should be used, but much higher for high-carbon steel.

What is required is to heat the water as much as possible, as long as we are sure of obtaining glass hardness. If this can be obtained in oil, then oil should be used. If not, then water of high temperature, gradually lessening the temperature until we get glass hardness. This has to be done by experiment at first, but, by practice, proficiency is soon obtained. It is a great mistake to harden tools of value in an open fire, even if a tube is inserted, as it is practically impossible to heat the steel evenly—a most important point.

When it is required to harden only a portion of a tool it should be moved slowly up and down in the water lest the tool should crack at the water line. The less steel is exposed to the air before plunging the better; in fact, if air could be excluded while the steel passes from fire to water the tool would appear the same color as when it went in before hardening.

Had a Good Road.

All sorts of hard things have been said against trailers, as the two-wheeled contrivances designed to be attached to cycles and other vehicles are termed. They are denounced as unsafe, unmechanical and, above all, ridiculous. A well-deserved and speedy oblivion awaits them, it is said by their detractors.

Trailers are exceedingly scarce in this country. A short time ago, however, the Bicycling World man encountered one in the neighborhood of Fort Hamilton, Brooklyn, which was striking as well as novel.

It bore a close resemblance to a miniature dog cart and was attached to an ordinary bicycle just back of the saddle. In the trailer were seated two little girls, who were the picture of contentment. The rider of the bicycle was bowling along at a fair pace, apparently but little impeded by his load. It need scarcely be said, however, that the road was level and with a surface of uncommon excellence.

**Elfin
Bicycles.****Sell
The
Elfin.**

Every Bicycle Dealer knows what the Elfin Juvenile Bicycle is.

It is the best Bicycle for children. It is the only bicycle that has a Reversible Crank Bracket, the only one with a simple chain adjustment.

The child who rides an Elfin can be sure that it will fit him until he is old enough to ride a man's wheel, and can easily learn to adjust the wheel properly.

These are some of the points that have made the Elfin

**Standard
of the World
—in Juvenile Bicycles.**

If you are interested, write us.

We will send you the name of our nearest distributing agent if you want it.

**Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.**



If you are looking for the best **DRY BATTERY** on the market, buy the **DOW**, and accept no other. For catalogues and price list send to the **DOW PORTABLE ELECTRIC CO.** Offices: 218 Tremont St., Boston, Mass.; 1135 Broadway, New York, N. Y.; Lippincott Bldg., 12th and Filbert Sts., Philadelphia, Pa.; 160 Washington St., Chicago, Ill.

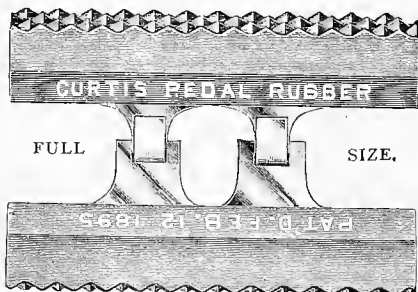
Not a Rubber-Tired Vehicle.

An old dodge, one that has been made use of in the past by riders whose tires have punctured at untoward times, was tried by a Connecticut cyclist recently in order to evade the State law requiring rubber-tired vehicles to carry lights.

He was arrested at Deep River for riding after sundown without a lantern. Investigation showed that the wheels did not have rubber tires, but rope was used instead. The prisoner was allowed to go, but as there is some question as to whether he can be prosecuted it may be made a test case, and the young man is liable to rearrest.

ADJUSTABLE PEDAL RUBBER

NO. 3.



NO SCREWS OR NUTS.

EIGHT PIECES TO A SET.

Sent Postpaid on Receipt of 25 Cents.

REED & CURTIS, WORCESTER, MASS.

ASK YOUR DEALER FOR THEM.

The Retail Record.**NEW STORES.**

Randolph, Vt.—Elwin Young, repairing.
Addison, N. Y.—C. F. Bronson, repairing.
Pittsfield, Mass.—Jacobs & Medicks, Tyler and Burbank streets.
Columbia, S. C.—W. D. Addie, West Main street.
Haverhill, Mass.—Seavey Bros.
Skowhegan, Me.—Leon Baker, repairing.
West Randolph, Vt.—Edwin Young, McIntyre Block.

CHANGES.

El Paso, Tex.—El Paso Cycle Co. dissolved partnership, C. D. Freeman continuing.
Grand Forks, N. D.—W. H. Olds, of Crookston, succeeds North Side Bicycle Co.
Sherburne, N. Y.—James C. Robinson succeeds C. G. La Fontaine.
Mount Pleasant, Mich.—Isbell Cycle Co. bought out T. H. Battle Co.
Fulton, Ill.—O. C. Moeszinger succeeds John Downs.
Augusta, Ill.—Charles L. Brunton succeeds J. F. Williams.
Bedford, Ia.—Martin & Stephens succeed Baillie & Stephens.
Postville, Ia.—Durno & Nicolay succeed Waters & Nicolay.
Baltimore, Md.—Snoddeal Mfg. Co. succeed L. F. Snoddeal & Co.

FIRES.

Delphi, Ind.—Sidenhender & Bennett, loss \$1,500, partly covered by insurance.
Berkley, Va.—C. H. White, loss \$500, no insurance.
Pittsburg, Pa.—Frank C. Haughton, Liberty avenue and Ella street, loss \$600, partly insured.

EMBARRASMENTS.

Somerville, Mass.—Louis J. Kleh, filed petition in bankruptcy, with \$515 liabilities.

Recent Incorporations.

Chicago, Ill.—Union Tire and Rubber Co., with \$50,000 capital. Incorporators, John W. D. Carsland, Charles W. Hills and Louis J. Delson.
Rochester, N. Y.—Regas Vehicle Co., with \$25,000 capital. Directors: J. Harry Sager, Cora B. Sager and George D. Green, all of Rochester.

You are Next.

A rare, beautiful and sparkling gem, surrounded by extensive and primeval forests, that's Rangeley; and as a fishing or health resort few places equal it. The group is made up of a chain of six lakes, and each abounds in the choicest species of salmon and trout. Fishing is a recreative sport which numbers its devotees by the tens of thousands, and why shouldn't it, for it takes one away from the turmoil and excitement of the city, and there is nothing to do but to enjoy the bright sunshine, and health giving air and the calm and quiet atmosphere that pervades the region. Everywhere about the Rangeleys are first-class camps, cabins and hotels in which one may comfortably enjoy his spring visitation. And so accessible has the region become through the introduction of the "Iron Horse" that the sportsman leaving Boston on the night Pullman is landed at his rendezvous by noon of the following day. An interesting guide on fishing, entitled "Fishing and Hunting," is published by the Passenger Department of the Boston & Maine Railroad, Boston, and for a two-cent stamp you can get it, and if you are a fisherman, you need it. ***

Cole Issues a Warning.

In announcing the dissolution of what had come to be known as the "tire fluid combination," organized to oppose the Neverleak patents, the G. W. Cole Co. add the following:

"We are, personally, now defending the case which was brought on the Duryea patent against W. G. Schack, and propose to continue so to do, hoping that the Buffalo Specialty Mfg. Co. will prosecute that case with all diligence.

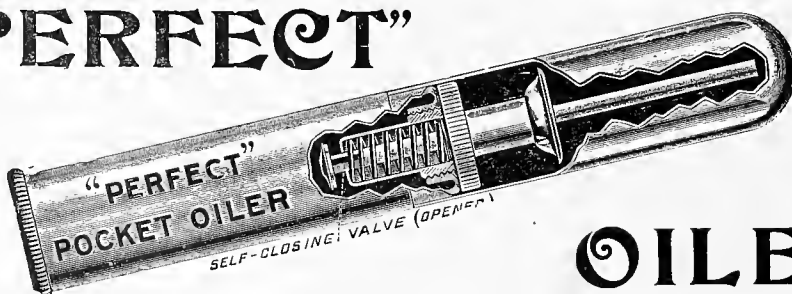
"Our Mr. Cole is the inventor of the collapsible tube in which we sell our Stop Leak tire fluid, and the idea of injecting tire fluid into a tire directly from a collapsible tube is original with him. Suitable patent applications on this matter are now pending before the United States Patent Office.

"We desire to notify all manufacturers, jobbers and dealers in tire fluid that we own these rights and propose to institute in due time (without further notice) whatever patent suits may be necessary to establish our rights therein, and to recover all damages that the courts shall adjudge to be due us."

Cross Versus Spring Frames.

Already, it is asserted, complaints are being heard from riders of the cross-frame bicycles about which so much has been said pro and con in England. Vibration, which was already at the limit of the endurance of many riders, has been increased by the use of the new frame. Consequently the spring-frame boom, which was halted in its incipency by the exploiting of the cross frame, is once more being heard of. Riders have the two horns of the dilemma to choose from, and evidently it is not easy to make a selection.

"PERFECT"



25c.

OILER.

Used by leading makers of high-grade bicycles. The only oiler that regulates supply of oil. CANNOT LEAK. We make cheaper oilers also, of unequal quality.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.

The Week's Patents.

674,433. Pneumatic Tire. William Covintree, Mays Landing, N. J., assignor to John A. Wiedersheim, trustee, Philadelphia, Pa. Filed April 16, 1900. Serial No. 13,018. (No model.)

Claim.—1. As an improved article of manufacture, a pneumatic tire comprising an inner tube or section, and an outer tube or section, said sections being connected together in such manner as to provide a space in line with the tread of the tire and a reinforcement arranged within the said space consisting of a series of paper strips secured at the side edges only.

674,451. Cushion for Saddles. William I. Bunker, Lagrange, Ill. Filed Aug. 2, 1897. Serial No. 646,735. (No model.)

Claim.—1. In a saddle, the combination of a supporting base plate, an inclosing cover, and a cushion of resilient material, interposed between the cover and base plate and having a body composed of a series of open-ended cells, formed by intersecting walls of a membranous nature having the capability of standing alone and the adaptability of curling or corrugating under pressure, permitting the cushion to yield in use without collapsing or breaking down any individual cell, substantially as described.

674,512. Wheel Hub. Andrew J. McCormack, Rochester, N. Y., assignor of one-half to Elmer D. Bristol, same place. Filed March 29, 1900. Serial No. 10,668. (No model.)

Claim.—1. The combination with a hollow casing supported within the wheel having oppositely extending angular surfaces upon its inner side and disks or annular rings at the outer edges of the latter, of the hub arranged within the casing adapted to be mounted upon an axis, the flanges on the hub engaging the disks on the casing, the flanges movably mounted upon the hub and engaging the angular faces to support the casing centrally upon the inclosed hub, and means for permitting the relative movement of the flanges to allow a relative movement between the hub and casing.

674,528. Post for Bicycles. Murray B. Watson and Abner B. Price, Toronto, Canada. Filed Nov. 20, 1899. Serial No. 737,667. (No model.)

Claim.—A post for bicycles consisting of a tubular standard having its lower end expansible and its upper end provided with a transverse slot a frusto-cylindrical wedge member stationarily contained within the lower end of the standard a frusto-cylindrical wedge member movably contained within the standard above the stationary wedge member the inclined faces of the two wedge members opposing each other an annular flange for the top of the movable wedge member having a screw-threaded opening a vertical adjusting screw the lower end of which is screw threaded to engage the screw-threaded opening in the top of the movable wedge member a head for the adjustable screw provided with a series of openings to receive the lever for rotating the adjusting screw a transverse socket on the head of the standard having an opening communicating with the bore of the standard a concave clamp mounted on the top of the adjusting screw coacting with the socket to hold a bar securely in position substantially as specified.

674,722. Automatic Pump for Tires. Anders C. Andersen and Laurits S. Andersen, Odense, Denmark. Filed Oct. 12, 1900. Serial No. 32,811. (No model.)

Claim.—1. In combination, the wheel hub, a pump cylinder having its axis parallel with the axis of the hub, a piston in said cylinder, a connection between the said cylinder and the tire, a cylinder arranged at substantially a right angle to the pump cylinder, a catch lever pivotally supported and having one arm moving toward and from the piston rod to engage the same, a piston in the cylinder arranged to bear at its front end upon a portion of the catch lever to move the same by direct action, and a catch on the said piston to engage the catch lever to retract the same, substantially as described.

674,744. Bicycle Fork. James J. Slevin, New York, N. Y. Filed May 12, 189. Renewed Oct. 17, 1900. Serial No. 33,404. (No model.)

Claim.—1. In a bicycle, the combination with the steering wheel, its axle, the front fork, the crown and steering post, of an auxiliary emergency fork within and adjacent to the usual fork and integral with a fork crown and provided with a head adapted to pass forcibly into the usual fork crown that is connected with the steering post and with openings at the lower fork ends for connection to the axle of the front wheel, substantially as set forth.

674,745. Brake Mechanism. Charles W. Sponsel, Hartford, Conn., assignor of one-half to William A. Lorenz, same place. Filed June 14, 1900. Serial No. 20,232. (No model.)

Claim.—1. The combination, with a handle bar; and with a brake shoe; of a rock shaft; means for operating said shoe from said rock shaft; and a handle adjustable transversely of the rock shaft and into alignment with the handle of the handle bar.

674,784. Support for Bicycles. Ernest Major, Cookham Dene, England. Filed Jan. 15, 1901. Serial No. 43,398. (No model.)

Claim.—1. In a bicycle support the combination with clips secured to the frame of the bicycle, a supporting rod journaled in said clips and having its lower end bent at an angle; of a handle pivoted to the frame of the bicycle, a link connecting said handle with said rod, and a spring connected with said link tending to hold said rod in operative position, substantially as described.

674,829. Air Pump for Bicycles. John Furbow, Cumberland, Canada, assignor to Elizabeth Furbow, same place. Filed Oct. 8, 1900. Serial No. 32,369. (No model.)

Claim.—1. A bicycle having a pump barrel formed by the seat-post tube 10 and provided with a partition at its lower end, a head 21 removably secured to the upper end of said tube and provided with a central internal guide 23 and an upwardly projecting and threaded nipple, a piston rod fitted in the guide and having a threaded end adapted, in the inoperative position of the rod, to be housed in the nipple, a cap screwed to said nipple and completely inclosing said threaded end of the piston rod, and a handle adapted to be connected detachably to the piston rod on the removal of the cap, substantially as described.

DESIGNS.

34,547. Frederick O. Bullis, Rochester, N. Y., assignor by mesne assignments to the Acme Coaster-Brake Co., same place. Filed May 21, 1900. Serial No. 17,490. Term of patent, 14 years.

Claim.—The design for a gear wheel, substantially as herein shown and described.

The Week's Exports.

For the week ending May 21 Great Britain once more occupies pride of place on the manifest of cycle exports, its purchases totalling well over \$10,000. France and Germany also are, as usual, high up on the list, but for the week Denmark and Japan took heavier shipments. The record in detail follows:

Antwerp—1 case bicycles, \$20; 2 cases bicycle material, \$21.
 Argentine Republic—6 cases bicycles and material, \$244.
 Abo—14 cases bicycles and parts, \$695.
 British Australia—11 cases bicycles and parts, \$280.
 British Guiana—5 cases bicycle material, \$157.
 British East Indies—51 cases bicycle material, \$616.
 Bremen—3 cases bicycles, \$85; 5 cases bicycle material, \$519.
 British West Indies—60 cases bicycles and material, \$1,288.
 Berlin—2 cases bicycles, \$102.
 Cuba—5 cases bicycle material, \$162.
 Christiania—22 cases bicycles, \$814; 3 cases bicycle material, \$10.
 Copenhagen—174 cases bicycles and material, \$4,637.
 Danish West Indies—1 case bicycles, \$12.
 Glasgow—9 cases bicycles, \$300.
 Genoa—13 cases bicycle material, \$1,695.
 Gothenburg—2 cases bicycles, \$50.
 Helsingfors—18 cases bicycles, \$1,659.
 Hong-Kong—5 cases bicycles and parts, \$434.
 Hamburg—137 cases bicycles, \$3,133; 21 cases bicycle material, \$650.
 Hango—3 cases bicycles, \$310.
 Havre—104 cases bicycles, \$2,080; 58 cases bicycle material, \$1,155.
 Japan—145 cases bicycles and material, \$4,264.
 Kiel—2 cases bicycles, \$50; 8 cases bicycle material, \$200.
 Liege—11 cases bicycle material, \$650.
 Liverpool—22 cases bicycles, \$995; 2 cases bicycle material, \$295.
 Landsrona—12 cases bicycles, \$300.
 London—305 cases bicycles, \$3,065; 25 cases bicycle material, \$1,119.
 Mexico—2 cases bicycle material, \$20.
 Port Say—6 cases bicycles, \$200.
 Philippines—10 cases bicycles and material, \$478.
 Pern—1 case bicycle material, \$40.
 Rotterdam—13 cases bicycles, \$530; 34 cases bicycle material, \$817.
 Stockholm—6 cases bicycle material, \$115.
 Southampton—62 cases bicycle material, \$5,411.
 Stettin—2 cases bicycles, \$100.
 Urga—1 case bicycles, \$129.

Was His Vocation.

Homer Seekford, of Springfield, O., was arrested last week, charged with stealing a bicycle. It is said that he has been making a regular business of this sort of thing for months, and riders and dealers are much relieved now that he is behind the bars.

L. R. HALL
Enameling and Nickeling Co.
ENAMELING, NICKEL-PLATING
and VULCANIZING for the trade.

Carriage Tires
 Our Specialty

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 BOSTON.

FAST TRAINS

Chicago & North-Western Ry.

The Overland Limited

California in 5 days

The Colorado Special

One night to Denver

The Chicago-Portland Special

Oregon and Washington in 3 days

The North-Western Limited

*Electric Lighted—Chicago,
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Duluth and St. Paul Fast Mail

Fast train to head of lakes

The Peninsula Express

*Fast time to Marquette
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NO change of cars. The best of everything. Call on any agent for tickets or address

461 Broadway - New York 435 Vine St., - Cincinnati
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The Best Advertising for the
 Irish Trade is

THE IRISH CYCLIST

Specimen copy and advertising rates on
 application rates to

R. J. MECREDY & SON, Ltd., Proprietors,
 49 Middle Abbey St., DUBLIN.

All American wheelmen who desire to keep themselves posted upon matters concerning the cycle in Europe, its trade, mechanics, and sport, should subscribe to

THE CYCLIST

AND BICYCLING AND TRICYCLING TRADES REVIEW.

The only recognized authority of English trade and manufacture. Sent post free to any part of America for one year, \$3.25. American manufacturers having novelties in machines or sun dries to introduce should advertise in

THE CYCLIST.

Terms on application to

LILFPE SONS & STURMEY, Ltd.,
 19 Hertford Street, Coventry, England.

Members of the American Trade visiting England are invited to call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street, Ludgate Circus, London, E. C.

THE BICYCLING WORLD

ANY DEALER

CAN
 PUT
 A

C. C.

ON
 YOUR
 HUB.

It is not necessary to buy a new hub in order to get the best Coaster on the market. The C. C. Brake has been thoroughly tested and is fully guaranteed. Booklet free. Address CANFIELD BRAKE CO., CORNING, N. Y.



Through Train and Car Service in
 effect April 29, 1900.

TWO FAST TRAINS

	"Chicago" Special Via Lake Shore.	"North Shore" Special Via Mich. Cen.
Lv. Boston	10.45 A.M.	2.00 P.M.
Due Albany	4.10 P.M.	7.35 "
" Syracuse	7.55 "	11.40 "
" Rochester	9.40 "	1.30 "
" Buffalo	11.40 "	
" Toledo	5.55 A.M.	
" Detroit		8.15 "
" Chicago	11.50 "	4.00 P.M.

The Finest Pullman Cars will be run on these trains. Tickets and accommodations in sleeping cars for sale at City Office, 366 Washington Street and at South Station.

A. S. HANSON, General Passenger Agent.

GOOD WORK GUARANTEED.

D. PATTINSON,
 rear 48 Stanhope St., Boston.
 (Opposite former location.)

EXPERT REPAIR WORK
 OF ALL KINDS ON
BICYCLES AND AUTOMOBILES.
 (Official L. A. W. Repair Shop.)

PATENTS GUARANTEED



Our fee returned if we fail. Particulars and our book "How to Secure a Patent" sent free. Patents secured through us are advertised for sale at our expense. Send sketch and description of your invention and we will tell you free whether or not it is patentable.

CHANDLEE & CHANDLEE
 Registered Attorneys,
 906 F Street, Northwest,
 WASHINGTON, D. C.

Many have made fortunes from simple inventions

The Thorndike

Boylston St. and Park Square,

On the border of the most famous Public Garden in America. **BOSTON.**

G. A. DAMON. J. L. DAMON. J. L. DAMON, Jr.



Via Rockford, Freeport, Dubuque, Independence, Waterloo, Webster City, Fort Dodge, Rockwell City, Denison and Council Bluffs.

DOUBLE DAILY SERVICE TO OMAHA

Buffet-library-smoking cars, sleeping cars, free reclining chair cars, dining cars. Tickets of agents of I. C. R. R. and connecting lines. A. H. HANSON, G. P. A., Chicago.

BOSTON & MAINE R.R.

**LOWEST RATES
 FAST TRAIN SERVICE**

BETWEEN

Boston and Chicago,

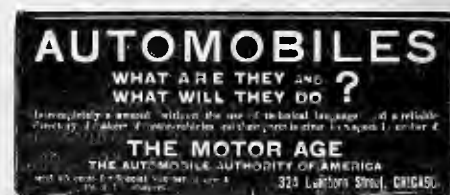
**St. Louis, St. Paul,
 Minneapolis**

and all points West, Northwest, Southwest.

Pullman Parlor or Sleeping Cars on all Through trains.

For tickets and information apply at any principal ticket office of the company.

D. J. FLANDERS, Gen'l Pass. & Ticket Agt.
BOSTON.



THE BICYCLING WORLD

FOUNDED 1877

and MOTORCYCLE REVIEW

In which is incorporated "THE WHEEL" (New York) and the "AMERICAN CYCLIST" (Hartford)

Vol. XLIII.
No. 10.

New York, N. Y., U. S. A., Thursday, June 6, 1901.

\$2.00 a Year.
10 Cents a Copy.

THE
MARK
OF



"HONEST
CYCLES
AT
HONEST
PRICES."

He Who Laughs Last Laughs Best.

Jacquelin, the cycling idol of Europe, easily
and decisively defeated by

MAJOR TAYLOR

...ON THE...

IVER JOHNSON

at Paris, France, May 27th, in two straight heats.

SEE IT, MR. JACQUELIN?

YES!

(TRANSLATION)

Le trait de la fourche de derriere du
bicycle Iver Johnson, tel que forge, et
conduit par le Major est excellent. J'ai eu
l'heureux avantage de l'etudier.

That dropped forged rear fork end
feature of the Iver Johnson, ridden by
Major is very fine. I had a splendid op-
portunity to study it.

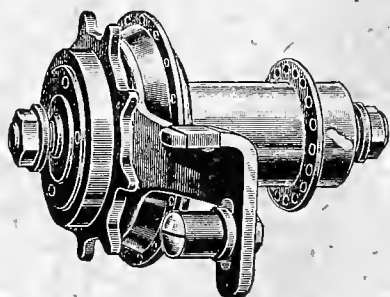
The champions of Belgium, Germany, Denmark and Italy on
prior occasions, by courtesy of Major, were given the opportunity
to inspect this same feature of the **IVER JOHNSON**.

New York Office,
99 Chambers St.

IVER JOHNSON'S ARMS & CYCLE WORKS, Fitchburg, Mass.

WASHINGTON D C

Here's the
**UNIVERSAL
Coaster Brake.**



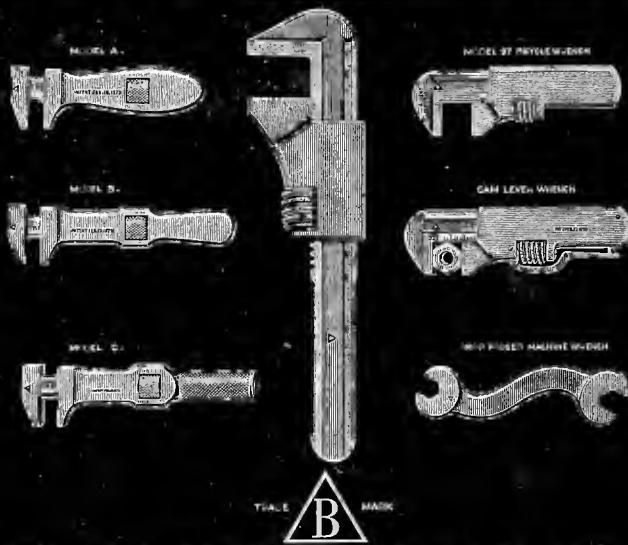
There is [none other quite so good.
It has features all its own.

Write for Catalog and Quotations.

Universal Coaster Brake Co., Office 318 Ellicott Square, Buffalo, N. Y.

Brandenburg Bros. & Wallace, Selling Agents,
New York and Chicago.

THE B & S. WRENCHES
ARE STANDARDS OF EXCELLENCE
BUY THE STANDARD AND GET YOUR MONEY'S WORTH



EVERY WRENCH BEARS THE COMPANY'S TRADE MARK
THE BILLINGS & SPENCER CO.
ESTABLISHED IN 1869
HARTFORD CONN. U.S.A.

"All roads lead to Rome."

And all business in New York seems
to tend toward

Grand Central Station.

This great building, which covers the
space of four city blocks, beginning at
the corner of 4th Avenue and 42d Street
is the Metropolitan terminus of the

NEW YORK CENTRAL LINES

and is the center of the hotel, residence,
club and theater district of the second
city of the world. To reach it, see that
your ticket reads by the NEW YORK
CENTRAL.

A copy of the 40-page Illustrated Catalogue of
the "Four-Track Series," New York Central's
books of travel and education, will be sent free,
post-paid, to any address on receipt of a postage
stamp, by Geo. H. Daniels, General Passenger
Agent, New York Central & Hudson River Rail-
road, Grand Central Station, New York.

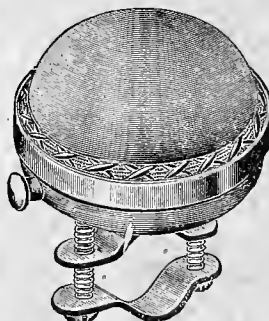
SHOW YOUR

SEARCH-LIGHTS
OIL OR GAS.
THEY'RE SELLERS.

BRIDGEPORT BRASS COMPANY,

19 MURRAY ST., NEW YORK.

STERLING BELLS.



SEND FOR
CATALOGUE
AND
PRICES.



N. N. HILL BRASS CO., EAST HAMPTON, CONN.

"Act

*in the living present;
today is yours; the past
is gone; the future may
never come."*

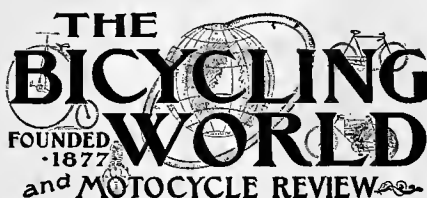
FOREIGN TRADE REQUIRES STIMULANT

Everyone says so. None can deny it.

"Oppor=

*tunities: the man of tal-
ent uses them; the fool
looks at them without
seeing them."*

THE 3 EXPORT ISSUES 3 OF



will supply it and supply it, too, in the
right way and on a scale never before attempted.

"American merchants should not try to make the world read and write English all at once, particularly when they are asking the world to buy of their goods."—*C. C. King, Paris.*

"The merchants here are no more competent to read English than American merchants are competent to read Spanish."
—*An American Consul.*

OUR EXPORT EDITIONS WILL BE PRINTED

ONE IN ENGLISH

ONE IN FRENCH

ONE IN SPANISH

There will be no "hit and miss"—no guesswork.

OUR MAILING LIST

of foreign dealers represents every country on the habitable globe. The names have all been collected by American consuls and special correspondence within the last six months, and assure, therefore, that the editions will go to live and going merchants. There is not another such list in existence.

Advertising contracts already in hand assure the emphatic
success of the undertaking.

**? Will you be represented or will you permit ?
? the golden opportunity to escape you. ?**

ADVERTISING FORMS CLOSE JULY 15th.

Rates and particulars on request.

THE GOODMAN COMPANY, 123-125 TRIBUNE BUILDING, NEW YORK CITY.

"All business is a system of balances. It is well enough to be careful up to a certain point, but beyond that a hesitating policy is as ruinous as downright rashness."



MORROW COASTER BRAKE

The Morrow Coaster Brake is the parent of all coaster brakes.

It was the first; it is the best.

The only coaster brake that has been good enough to need no change.

It increases the utility of the bicycle; it decreases the effort necessary to propel it.

More pleasure; less exertion.

Ask your dealer to get it for you.

Never put off until tomorrow when you can buy a MORROW today.

Send for our illustrated booklet.

Eclipse Manufacturing Co.,
Elmira, N. Y.

CHARLES AUSTIN BATES, N.Y.



Fisk Tires

Now for Business.

This has been a backward bicycle season—nothing but rain, muddy roads and mad cycle dealers.

From now on 'twill be made up for with a vengeance. This will be the best bicycle season the trade has seen since the slump, when every dealer got scared, pulled in his horns, stopped advertising and killed business deadlier than a door-nail.

How are you on the tire question? Do you think you are giving your riders satisfaction and getting your share of the trade?

Fisk Tires will help you to improve your condition. They please both rider and dealer and oil the wheels of business dealings.

We have made and sold more Fisk Tires this year than ever before; could have sold twice as many had we been prepared to make them.

This simply means that Fisk Tires have made a name and fame for themselves by giving good and satisfactory service.

Sell the **Fisk** and run no risk.

THE FISK RUBBER COMPANY, Chicopee Falls, Mass.

BRANCHES: SPRINGFIELD, NEW YORK, 99 Chambers St., SYRACUSE, BUFFALO, DETROIT, CHICAGO, 54 State St., SAN FRANCISCO, The Phil B. Bekeart Co., 114 Second St.

REPAIR DEPOTS: 105 Reade St., New York, N. Y. 168 Oliver St., Boston, Mass. 1015 Arch St., Philadelphia, Pa.

HAWKINS 1123 B WAY

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., June 6, 1901.

No. 10

CAN'T CUT MORROWS

**United States Court Continues Injunction
Against Jobber Colton—Eclipse Mfg. Co.
Preparing Suits Against Others.**

It is more than reasonably certain that the price of Morrow coaster-brakes will not be again tampered with this season.

The lesson taught the first man who tried it, H. C. Colton, of Buffalo, will prove a warning to other price-cutters. As was stated at the time, the Eclipse Mfg. Co. "tied him up" in March last with a temporary injunction.

Judge Hazel, sitting in the United States Supreme Court, at Buffalo, duly gave Colton an opportunity to "show cause," and after hearing the evidence has continued the injunction until September next, when the motion to make the injunction permanent will be argued.

As Colton's attorney has entered a demurrer which prohibits the introduction of new evidence, the Eclipse people naturally feel that the evidence which has carried in the preliminary proceedings will also obtain the verdict in the final hearing.

The Eclipse Mfg. Co. will not, however, rest on their oars. They have evidence against other price-cutters and are preparing to take action similar to that taken against Colton.

As was stated at the time the suit was filed against Colton, the evidence showed that the Eclipse Mfg. Co. sells the Morrow coaster-brake in the United States only under a restricted license contained in what is known as their "Jobber's Agreement," by which a minimum price is fixed lower than which their vendees may not sell. In violation of this agreement the Adirondack Cycle Co., of Buffalo, sold a number of these brakes to the defendant Colton. No contractual relations existed between the Eclipse Mfg. Co. and Colton at this time, but he well knew the existence of said "Jobber's Agreement" and of the fact that the Adirondack Cycle Co. were violating it in selling to him, and he, with the connivance of the latter, adopted this course of get-

ting goods which he knew he could not purchase directly from the Eclipse Mfg. Co. The defendant Colton extensively advertised the brakes at less than the restricted price and was engaged in selling them at less than such price at the time his bill in equity was filed. This suit was brought for the purpose of obtaining a permanent injunction restraining the defendant Colton from purchasing, advertising or selling the Morrow hub coaster and brakes at less than the restricted price, on the ground that he was not an innocent purchaser and that he was engaged in infringing the Letters Patent under which the brakes were made, by his conduct above recited.

Judge Hazel ruled that "it appearing from the affidavits that there was a concert of action between the Adirondack Co. and the defendant to reduce the price of the patented article; on the authority of the Edison Phonograph Co. vs. Kaufman, 105 Fed. Rep., 969 and the cases cited in the opinion of Judge Acheson, the injunction heretofore granted is continued pendente lite."

He last week ordered that "a preliminary injunction be forthwith issued against the said defendant, restraining him, his attorneys, agents and employees, and he and they are each hereby restrained and enjoined from infringing upon the said letters patent of the United States from using or causing to be used, vending or causing to be vended, any of said coasters and brakes purchased by him from the Adirondack Cycle Co., of Buffalo, N. Y., or from any one else, at a price of less than \$3.92 net each, and from vending or causing to be vended, and from advertising for sale any of said hub coasters and brakes at a price less than \$3.92 net each until this court shall make order to the contrary."

The injunction was accordingly issued and as stated, it remains in force until the final argument is heard at the next term of the court in September next.

Echo of Boom Days.

The receiver of the Whitman Saddle Co. has called a meeting of its creditors for June 10 next at 45 Cedar street, this city. The company was one of the products of the boom period, and failed years ago. The receiver's call is almost an echo from the dead and forgotten past.

SANGER'S FINISH

Red Flag and the Cry of "Going! Going! Gone!" will Mark the End.

Despite efforts to avert it, the Sanger Handle Bar and Plating Co., Milwaukee, is to be swept from the boards. The court has ordered the property sold at public auction on Monday next, 10th inst.

The assets consist of handle bars, unfinished and in course of construction; special machinery and tools, nickel and copper solutions, polishing stands, electric light plant, boiler and engine, and furniture and fixtures; also the uncollected book accounts.

Buffalo Creditors Want Settlement.

More than three years have elapsed since the Buffalo Wheel Co., of Buffalo, N. Y., got into trouble, but its winding up seems to be as remote as ever, although ample time has been allowed for this purpose. So, at least, think the creditors of the concern, which made a general assignment on May 17, 1898, and they are clamoring for a settlement of the assignee's accounts. The Indianapolis Drop Forging Co. is a creditor to the amount of \$719.62, and alleges that no portion of its claim has been paid, and, further, that no account has ever been filed by the assignee.

Justice Childs last week issued a citation to Joseph P. Devine, as assignee of the Buffalo Wheel Co., requiring him to appear in Special Term on June 10 to show cause why a general citation should not issue requiring all persons interested in the assigned estate to show cause why a settlement of the assignee's accounts should not be had.

Creditors to Meet and Appoint Trustee.

Referee Newton has sent out notices for the first meeting of the creditors of Arthur Griggs, the New Haven (Conn.) dealer. The hearing for the appointment of a trustee will take place at the office of the referee on June 8 at 11 o'clock in the forenoon.

Capital Almost Doubled.

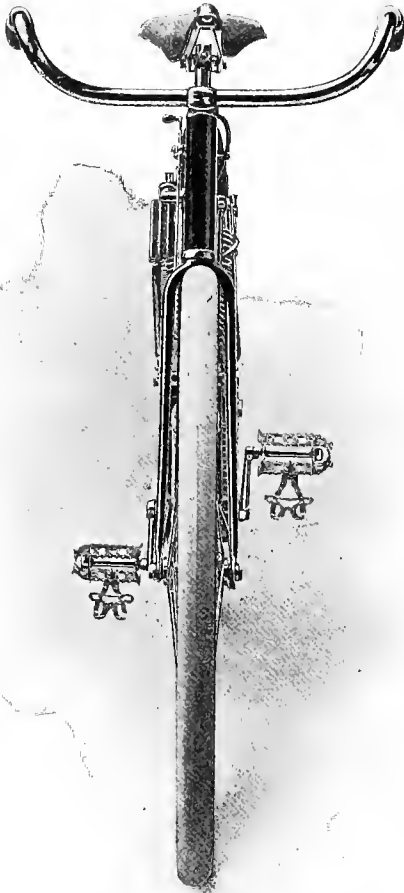
The Smith & Egge Co., of Bridgeport, Conn., has filed in the office of the Secretary of State a certificate of an increase of its capital stock from \$60,000 to \$100,000.

GIVEN A GOOD START

Hendee Motor Bicycle Launched the Right Way—Its Features and Performances.

Few, if any, bicycles have been launched more auspiciously and with better judgment than the one which Oscar Hedstrom has built for the Hendee Mfg. Co. of Springfield, Mass.

With quiet confidence, but unpreceded by large and unhealthy claims of great speed, the "launching" occurred in Springfield on Saturday last, and not on a track or level stretch of road, but where the most should be made of a motor bicycle—on the steepest



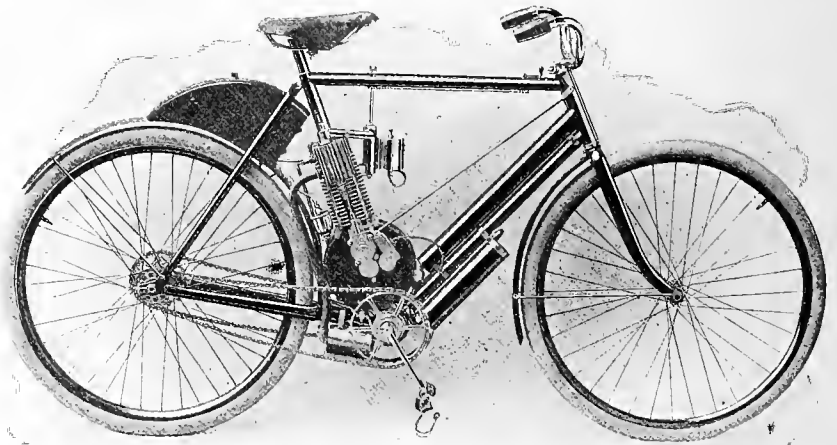
hill available in this case, what is known in Springfield as the Cross Street Hill, a 19 per cent grade, 350 feet long, and with a loose and yielding surface.

The trial took place during the noon hour, when nearly everyone was at luncheon, but, despite the fact, advance notice of the occurrence in the local papers served to attract a crowd of 400 or 500 people to the scene. What they saw could not well fail to impress them. With Hedstrom himself in the saddle, they saw the machine crawl on the level at five miles per hour, then speeded to perhaps 25 miles for a short distance, and finally go up the hill without a waver at what was not less than a 12-mile pace. Hedstrom then coasted down, and for good measure made a second ascent. Again, and de-

spite the comparatively high gear, 58 inches, he went up without a falter; indeed, when near the top, he advanced the speed lever, and the bicycle jumped forward, showing an abundance of reserve power. A Bicycling World man stationed on the hilltop can vouch for the performances.

The bicycle looks equal to its performances. It is well and cleanly built, and is even more attractive and eye-pleasing than its pictured representations. Hedstrom has been quietly engaged in perfecting it for many months, and is quite competent for any task of the sort. He not only rode as a pacemaker, but designed and built several of the motor tandems in use on the track during the past two years, and is really one of the handiest men about bicycles and motors to be found anywhere.

The Hendee people are uncertain how the bicycle will be marketed. They may make it themselves or organize a separate company for the purpose.



There can be no doubt that the details have been carefully thought and worked out. The arrangement of the levers, the device for throwing out the engine, the provision for oiling; the placing of the entire motor, all bear this out. Everything that could be done to simplify and improve the appearance of the complete machine appears to have been done.

Although the motor, which is of the usual gasoline 4 cycle type, is rated at $1\frac{3}{4}$ H. P., the machine scales but 75 pounds. As will be seen by the cut, the engine is placed in the centre of the frame, a method of construction which permits the use of a wheel base of the usual length. The motor is so compactly built that the tread is reduced to $5\frac{1}{2}$ inches. In fact, as will be seen by the cut, the head-on view is almost indistinguishable from that of an ordinary bicycle.

On the rear mud guard is fastened the gasoline tank, and just above it is a small receptacle for lubricating oil. From the latter the oil is conveyed to a measure, which distributes it. The battery is carried in a round case attached to the top of the main frame tube, while the induction coil is fastened to the under part of this tube. The carburettor or vaporizer is carried just in

front of the engine cylinder. The contact breaker, exhaust valve cam, etc., are placed as usual.

But three levers are used. The first, termed the speed and relief lever, is just under the handlebar, and can be operated by the thumb. With this the engine can be thrown out or in and the speed regulated at all times except when a hill is encountered, when the second lever, the one that regulates the supply of gas, is manipulated. The third lever is just under the saddle, and regulates the supply of air. It is rarely disturbed after being set. These three levers are all that are necessary for the operation of the machine.

The usual device for switching off the electric current is contained in the left handle grip, while a brass plug is used to connect and disconnect the battery. The driving is by three chains, one for the pedal when the engine is thrown out as in starting, and two connected with the motor.

Injunction Proceedings Postponed.

The American Bicycle Co. has still to obtain a temporary injunction restraining the Stearns Bicycle Agency of Syracuse from selling Regal and Holland bicycles. Its application, which was to have been heard by Judge Cox in Utica on Tuesday last, was not considered, the hearing being postponed one week, or until June 18.

Recent Incorporation.

Dover, Del.—The Snowleaf Mfg. Co., to manufacture, buy and sell bicycles, automobiles and improved self-propelling vehicles, with \$100,000 capital. The incorporators are Baltimoreans.

Enemy Blamed for Blaze.

Damage amounting to more than \$1,000 was caused to Cone's bicycle establishment at Pottsville, Pa., last week. It is supposed to have been caused by spontaneous combustion.

Blaze Destroys Stearns Stable.

Five fine coach horses were burned to death at Syracuse, N. Y., on Sunday night, at a fire which destroyed the stables of E. C. Stearns. A loss of \$6,000 was inflicted.

APRIL AUSPICIOUS

Its Good Record in Exports—France, "Other Europe" and Japan Increase Purchases.

While the total for the ten months of the governmental year ending with April is nearly \$1,000,000 behind the record of the previous year, the April exportation of cycle stuff proves to have been distinctly favorable. Following March, which was also a good month, the export trade serves in a measure to offset the halting trade at home caused by the uncertain and execrable weather.

During April, France and "other Europe" actually exceeded their purchases during the corresponding month of 1900, while the declines in Great Britain and Germany were nothing like those that had come to be accepted as matter of course. Japan's was the healthiest increase of the month, which almost offsets the fall in Australasia. There were also small but welcome, and possibly significant, advances in Mexico, the West Indian and minor South American countries. In fact, the month may be accounted the best in some time, the comparative loss of but \$20,000 being a mere trifle as losses go now.

The record in detail follows:

Exported to—	April		Ten months ending April—		
	1900. Values.	1901. Values.	1899. Values.	1900. Values.	1901. Values.
United Kingdom.....	\$74,534	\$66,025	\$727,056	\$368,582	\$319,539
France	25,780	30,073	404,218	206,112	126,874
Germany	35,202	29,117	955,510	358,161	143,069
Other Europe.....	70,979	75,693	1,204,374	586,118	379,271
British North America.....	60,585	56,617	427,432	265,893	230,342
Central American States and British Honduras	228	430	4,733	2,563	4,446
Mexico	1,920	2,244	42,804	21,128	16,813
Santo Domingo.....	35	108	253	272	445
Cuba	4,812	881	13,066	142,616	12,328
Porto Rico*.....	407	.....	2,345	2,376	.....
Other West Indies and Bermuda.....	4,181	4,698	54,176	43,432	42,619
Argentina	3,513	324	181,901	139,453	23,665
Brazil	1,765	629	48,599	24,906	9,083
Colombia	263	145	6,650	6,213	544
Other South America.....	2,887	5,068	42,354	57,664	28,482
Chinese Empire.....	288	1,930	21,787	23,245	12,732
British East Indies.....	2,134	5,439	137,604	94,194	46,694
Hong-Kong	923	694	7,015	6,998	8,043
Japan	13,917	28,134	103,248	189,309	182,850
British Australasia.....	34,624	16,222	224,664	210,113	172,554
Hawaii*	4,652	.....	33,306	43,532	.....
Philippine Islands.....	5,336	3,563	575	20,109	65,738
Other Asia and Oceania.....	1,905	2,838	28,492	38,804	21,816
Africa	4,387	2,217	156,436	54,407	81,354
Other countries.....	92	36	616	181	255
Totals	\$355,349	\$333,125	\$4,829,214	\$2,906,381	\$1,929,556

*No longer included in statistics.

Sales Good in Pine Tree State.

In the field of cycling the State of Maine has not played as prominent a part as some others more blessed in the matters of population and roads. If a dealer in its chief city, Portland, is to be believed, however, matters are looking up this year. He is quoted as saying that, judging from the number of wheels sold, there will be a revival of wheeling interest this year. The coaster-brake has brought about a new era in cycling, and lessens to a great extent the labor of riding over the hilly roads of the vicinity.

Packing for Foreign Shipment.

The method of packing goods has always been one of the items that have cut a figure in export trade, and that have given cause for unlimited complaint on the part of foreign patrons. Realizing the fact, and making use of an idea that works two ways, one of the large hardware houses incloses this printed slip in all packages which leave their premises:

"Notice.—We take all the care possible that all our goods should go out perfect, but in the handling many thousands of packages yearly mistakes must occasionally happen. We ask that if you find anything wrong with this package you will kindly write to us, inclosing this slip, and we will take pleasure in adjusting to your satisfaction, and will also be grateful for the check thus put on our packers. Packed by No. 33."

Credit Men's Work.

In view of the approaching convention—the sixth annual—of the National Association of Credit Men, which is to be held at Cleveland, O., during June, the following remarks recently made by its president, John Field, of Philadelphia, are timely:

"The association in its efforts to reach a basis of estimate upon which a retail merchant's credit can be predicated searches diligently for all matters that would affect that credit adversely. It has to-day in its

DUNLOP RECONSTRUCTION

Buys a Rubber Mill, Changes Capital and Guarantee—Claims a "Joker" Patent.

Important matters came up for settlement at an extraordinary general meeting of the Dunlop Pneumatic Tire Co., held recently and duly reported in the current British papers.

The proposal to take over the business of the Rubber Tire Co. was adopted. The big tire company thus becomes the possessor of its own rubber works, and will at once make preparations to change the process of manufacture of its tires. The time-honored hand-made tire will disappear in favor of a vulcanized article, and it is refreshing to note that the latter is already being heralded as superior to the tire it displaces. This is undoubtedly true, but scarcely comes with good grace from a concern which during almost its entire existence has been vaunting the superiority of the hand-made tire over all others.

Incidental to the new process came the announcement that the time of the guarantee would be extended, this being made possible, it was said, by the use of the vulcanizing process. The present guarantee is for twelve months, and while the terms of the new one have not been made public, it is thought it will be either a fifteen or an eighteen months' guarantee.

This change is being made to meet criticisms of the concern's policy, criticisms which are becoming entirely too frequent, in view of the short time which the Dunlop patents have still to run. The present guarantee is defined as being twelve months from the date of manufacture, and dealers have complained bitterly of having half of this time elapse before they dispose of the machine to which the tires are fitted or of the tires themselves.

The claim is also made that a patent is held on the new process of manufacture, and that it will run until 1910, and thus continue the Dunlop monopoly. Considerable doubt is felt, however, regarding the bona fides of this claim.

The matter of the reconstruction of the gigantic and much overcapitalized concern was also taken up. The directors intimated that they had a plan of reconstruction in preparation, the chief measure of which would be the cutting down of the capital from \$20,000,000 to \$12,500,000. Under such a scaling down the deferred share holders would be the greatest sufferers, although the ordinary and preferred share holders would also be asked to sacrifice something.

It was stated that if the capital was not scaled down it would be necessary to pile up still larger reserves, this being, presumably, to guard against the day when the patents expired and the dividend-paying outlook would be very blue. To accumulate such reserves, however, the present system of dividends would have to be interfered with.

The proposal, as far as it went, was favorably received, and there appears to be little doubt that a detailed scheme for reconstruction will now be drawn up.

possession information relative to the private character of many merchants that would surprise them if they knew it. It has evidence that if used would break up families and hurry apparently prosperous houses into the bankruptcy court.

"The fund which we have for the prosecution of dishonest debtors is working great good. It is evident that a man contemplating the defrauding of his creditors by a dishonest failure will hesitate long when he knows that the eye of the association is fixed upon him, watching his every movement, and ready to invoke the strong arm of the law in bringing him to justice."

YALES WIN

For the Rider.

That Blue Ribbon Event

IRVINGTON=MILLBURN

25 MILE ROAD RACE

Run in the Mud on May 30th

Won by a Novice

DAVID TURNER on a YALE BICYCLE

ON THE TRACK

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NEW YORK, 99 Chambers St.

BOSTON, 167 Oliver St.

THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, JUNE 6, 1901.

Foreign Trade of the Future.

For the year 1900 the foreign trade in bicycles and sundries approximated \$11,000,000. Of the five countries engaged in the exportation, the United States accounted for slightly more than \$3,000,000—some \$1,700,000 less than during the previous year and nearly \$4,000,000 less than in 1898.

The causes contributing to the decline are many and varied. The gradual subsidence of the cycle-frenzy which fairly swept the world during '96, '97 and '98 was, of course, the leading factor in the result. The other causes are not so apparent. The growlings of the green-eyed monster in the breasts of the English and German Yankee-phobes have undoubtedly played a part. The organization of the Trust and the consequent reduction of the competitive forces at work in American interests are also to be included in the reckoning.

Of the other contributing causes, no better presentment is possible than those presented elsewhere in this issue, which were brought out by the *Bicycling World's* corre-

spondence with American consuls and other competent persons.

The fact that bicycles of dubious value have injured our interests in certain foreign fields is not in the nature of news. The fault and blame are primarily with the purchasers. The export game is a fascinating and lucrative one, and, like anything of the sort, it attracts the conscienceless "sharks" who prey on the greedy and the gullible who permit reputation and quality to be blinded by price.

The reports we publish are, however, full of hope and suggestion. Those from Spain indicate the need of direct dealing and of direct transportation; but, generally speaking, the reports indicate that it is the bicycles with cushion frames or coaster-brakes, or both, that must hereafter be made the most of. Going "behind the returns," it is fairly plain that the leisure classes—and other classes, too—have wearied of too much leg-work—too much perspiration, too much hill climbing, too much jarring and jolting. Excepting in America and Great Britain, the coaster-brake and cushion frame are practically unknown, or, at any rate, in restricted use. When the saving of energy and the added ease and comfort and exhilaration are made plain to the inhabitants of other lands, we cannot but believe that our export trade will appreciably feel the stimulation. All effort should be shaped in that direction.

Several of our reports clearly state that already there is a demand for motorcycles. The conditions described in others indicate that a similar demand can be created without great expense. The part that hills and climate play in the tropical countries proves this. If one excepts Ecuador and a few other South American countries, which appear more in need of road building Mac-Adams than of liberating Simon Bolivar, it is fair to assume that the bicycle that entails little pedalling and no perspiration, and that climbs hills without being pushed, is certain of a welcome warmer even than the climate; indeed, there is no country—hot, cold or temperate—in which such a bicycle can well fail of generous appreciation. It will require time and education to awaken the world to the fact, but the awakening must come with the development of the bicycle itself.

In its forthcoming export issues, one each in the English, French and Spanish languages, the *Bicycling World* believes it can and will exert tremendous influence to the end in view—to clarify and stimulate our foreign trade.

We mean that the exact situation of the American trade and of the "sharks" who prey upon and who prepare pitfalls for the foreign buyer shall be given generous attention; we mean that the influence and importance of the bicycle with coaster-brake and cushion frame, and of the motor bicycle, shall be made so full and so clear that none can fail to understand. In fact, we are confident that our plans and publications will prove of more wholesome and far-reaching and stimulating effect than any undertaking ever before attempted by any one concerned in the cycle trade.

All Trades Affected.

If it is any consolation to reflect that other lines of business are suffering from the present long spell of wet weather, the trade has ample grounds to feel consoled.

'Tis said that misery loves company, and therefore the thought that the present spring has been little short of a calamity to store-keepers—and, of course, to many manufacturers as well—will go a little way toward reconciling the cycle trade to its hard lot.

Everywhere the same story is told. Stagnation had ruled where brisk business should have been in evidence. Stocks accumulated in anticipation of a good spring trade still encumber the counters and shelves of hundreds of stores. Manufacturers look vainly for the repeat orders they prepared for during the winter months.

The welcome change to fine weather, so often heralded and as often proved to be an illusion, must come soon if the season is not to be a failure all around.

To the cycle trade such a change would be doubly welcome. The season is all too short as it is, and the turning point—the point where sales deferred are lost for this season—is almost reached.

All eyes on Jupiter Pluvius, therefore, and may he speedily conclude that the thoroughly drenched earth may be spared further libations!

Career of the Coaster-Brake.

It is seldom safe to prophesy, no matter how likely the prophecy may seem to be.

Enthusiasm is sometimes the principal basis for prognostications regarding the future of a movement. Even when something vastly more substantial exists for the confidence felt, events may take an entirely new turn and leave the prophet with his reputation badly shattered.

But sometimes it works just the other way. The predictions made are verified by

subsequent events, and the lucky prophet is able to say "I told you so" with extremeunction.

The meteoric career of the coaster-brake is a good illustration of this.

Only a year ago it was entering upon what was really its first season. It had, to be sure, been on the market for two or three years, and had been used sufficiently to show that it had passed the experimental stage. But as far as the general riding public was concerned it was being presented for the first time.

A few brave hearts made bold to say that it would mark an era in cycling history. Some of them even went further and asserted that before many years had passed it would oust the fixed gear from its position and become the standard equipment.

Even yet the latter part of this prediction has not been fulfilled. The fixed gear is still regular and the coaster-brake optional. It is even probable that the situation will remain unchanged during 1902.

But in spite of this the shoe is on the other foot now. The coaster-brake is the "comer." It has taken the offensive, and is forcing the fixed gear very hard.

The best proof of this is found in the fact that it is no longer deemed necessary to boom the coaster-brake. At first there was a great hubbub about it. Its advocates praised it in season and out, and conducted an active campaign in its behalf. The onus of proving its excellence was on them, and they bestirred themselves to make good their case.

To-day all this has changed. But little, comparatively speaking, is heard of it now. It is no longer necessary to introduce it to notice and to convince prospective purchasers that it is all right. They know all about it, and many of them take it without question.

In many sections dealers are selling more coaster-brake machines than those fitted with the fixed gear.

Especially is this true of hilly districts. There the device is at its best, and experience has shown its great superiority over its rival.

There are places, of course, where it has not made any great advance. In some of them the roads are of a character where little advantage is derived from its use, and in others it is not so well known or understood.

But it is undisputable that the coaster-

brake has made for itself a very strong position, and is destined to strengthen it as the seasons pass.

Give the Sundries a Show.

The sun—speak it reverently and in subdued tones—has shone now for three whole days. It may—note we say "may"—shine for three more. We hope it will. But, whether or no, that good old proverb, "make hay while the sun shines," should now obtain and be obeyed with redoubled force.

Throw your whole heart in the effort to "make up for lost time." Strike hard and early and often. If you advertise—and you should—advertise confidently, aggressively, largely.

If the effort convinces you that the so-called "selling season is over," turn your attention to sundries. Few of you—we mean you dealers—give them half the attention they deserve.

The "season" for sundries is never over. There is always a call for them. There would be a larger call if dealers recognized their true worth. They not only sell themselves, but help sell bicycles—that is, they get people into the store, and thus give the dealer a chance to interest them in bicycles.

Keep the bicycles in the background for a while and fill your show window with a striking array of sundries. Then advertise your sundries, or your novelties in sundries, or a few leading ones, at any rate, and when buyers call seek to interest them in other things. The effect will probably surprise you.

Nailing the Mail-Order Bicycle.

Whenever and wherever the cycle dealer feels the stress of mail-order competition let him keep handy this verbatim extract from the catalog of the mail-order house of Sears, Roebuck & Co.:

"Our \$12.75 price is made possible by reason of our having these wheels made up in lots of thousands, by reason of the manufacturer's ability to contract for the tubing and other material in immense quantities for cash, and his ability to run his factory every day through the dull months of winter, when many other factories are closed down and skilled labor can be secured at a modest scale of wages. You get the benefit of all this."

We last week dealt at length with the shameless methods of these houses, but this extract is of itself short and sufficient, and convicts Sears, Roebuck & Co. of deliberate deception, if not downright fraud. It is a brazen and shameful lie.

The winter months are not "dull months," factories are not then "closed down," and skilled labor is not to be secured at "a modest scale of wages."

The purchasers of mail-order bicycles cannot obtain an iota of "benefit" from such causes, for as a matter of truth in the winter months cycle factories and all others are busiest and labor is in greatest demand.

All dealers, if not all farmers, know it, and know it well. The mail-order falsehood was invented, printed and circulated to deceive and delude the farmer. The dealer should help him see the light. He can afford to rest his case, and will score his point by having any prospective customer, farmer or otherwise, write to Sears, Roebuck & Co. for a denial or affirmation of their assertion, or, if he doubts, by having the customer ask any bicycle manufacturer which are his "dullest months."

The price of mail-order bicycles is not "made possible" by such reasons as those given.

It is the general belief that every one who has the slightest desire to ride a bicycle has learned to do so long ere this. That the popular belief is well founded in the main is demonstrated by the general closing of academies and other places where the beginner was taught his paces. That all have learned, however, is too sweeping an assertion. On a number of occasions within the past few weeks we have noticed wabbling riders, assisted by friends more or less disinterested, pre-empting pretty nearly the whole of secluded asphalt streets. Evidently the proslighting spirit has not quite died out.

Monthly publications serve a purpose, and are better than none. But, as a wise man once observed, a man or an institution or event may be born and may die and be buried and forgotten in thirty days. In this age men, machinery and events move quickly, and, ipso facto, monthly trade publications in particular can be little more than compilations of trade puffs which flatter but do not inform.

If you only wait long enough, says some wise observer, everything will come back to first principles. This thought occurs when the increasing use of straight front forks by racing men is noticed. The original Rover safety had straight forks. They had some advantages, but it is doubtful whether even fashion can bring them back for road use.

THE FOREIGN FIELD

It is Still Worth Tilling, but Reports Agree That American Export Methods Require Alteration—Existing Conditions.

In preparing for its export issues the *Bicycling World* has searched the corners of the globe for names and information that will serve the end in view. The result has been the compilation of a list of names and addresses such as does not exist anywhere on earth outside the *Bicycling World* office.

In addition to this important item, not a few of the consuls and correspondents who were addressed contribute valuable data and information bearing on the causes leading to the twelvemonth's decline of nearly \$2,000,000 in the foreign demand for American cycles and sundries. The causes are many and varied and interesting, reaching from the prejudice born of British and German rivalry to the dislike of hill-climbing in the tropical countries. Few engaged in the trade can read these reports without profit to themselves:

England.

LIVERPOOL: "There are many reasons to account for the falling off of the sale of American wheels in England. In the first place, bicycling is no longer a fashionable amusement over here; it has gone out as a fad among society young people. Golfing has to a great extent taken the place of bicycling as a means of healthy outdoor exercise among people in comfortable circumstances. Of course, this reason affects the sale of English as well as of American bicycles. As to the latter specifically, there has always been more or less prejudice against them, and in this respect it is fair to say that the feeling of opposition because of place of origin is almost exclusively confined to bicycles. This prejudice is sedulously encouraged by English manufacturers and dealers, and indeed probably owes its origin to them. It is very difficult to get American bicycles repaired here. English wheels nearly all have steel rims and double tubes. English dealers insist that wooden rims will not stand the climate, and they do not know how to repair punctures in single-tube tires. Undoubtedly discredit has been thrown on American bicycles by shipments of inferior and cheap machines. The sales of American bicycles in England would doubtless be much larger were they confined to the better grades of machines. A great difficulty experienced by riders of American wheels is owing to the lack of a standard of uniformity among different makers in threads, parts, etc. Then there has been a steady modification of the English bicycle, until now it is very much like the American bicycle in appearance, and the weight has been gradually reduced. Another important reason for the decreased sale of American bicycles in England is that within the last

two years English wheels have come down tremendously in price."

LEEDS: "The prejudices of the people here are strongly in favor of home made products, and the users of bicycles generally are strongly possessed with the feeling that there is no foreign made machine equal to their own home made heavier machines, so that little headway has been made in introducing our American made machines into this section of England. One firm made a vigorous attempt to introduce our machines here, taking three kinds. These were offered at lower prices than the similar grade of machine made here. It was supposed that the lesser price and weight and greater ease in learning would lead to their introduction, but in this they were disappointed, as oftenest the lesser price was taken as an evidence of an inferior machine, and the lesser weight caused a fear of want of strength. This venture, after a trial of three years, was dropped during the last year. The time may come when the true merits of the American made machines will be recognized, but until then there is little promise for a worker in this section."

Germany.

DRESDEN: "The dealers here order in the fall for sales the following spring. It takes usually three months from date order is given until goods are received from the United States, if shipment is made promptly. No doubt Saxony has a full share of the decline in the export trade of America, due to the following reasons: American wheels were only sold to the better class of people, and among them the bicycle craze has almost ceased. Manufacturers of wheels have during the last three years steadily improved in the durability, style and weight of the bicycles made in Saxony, while the competition of the cheaper American wheels has cut down the prices until there is very little profit to the manufacturer. Some of the works have closed up, while all complain that business is not profitable as compared with that of five years ago. All over Saxony the rapid improvement in the American export trade is noted with great jealousy, and the newspapers long ago sounded the alarm, warning the manufacturers to look out for this traffic. The effect of this is that unless a foreign article, particularly American, furnishes advantages in quality or price, or both, the average Saxon will patronize home manufacture. Dresden is not an important Consular post from a commercial standpoint, as but few goods are imported direct from the United States. There is an American colony of about 1,500 people here during the winter months of each year, and a much larger number of English, who buy largely of American goods, but our merchants usually purchase their supplies from the large importing houses in Hamburg or Bremen, the former preferred, because there is water transportation all the way to this city at cheap rates."

MANNHEIM: "That the American trade in bicycles in Germany has fallen off is doubt-

less true. It is, however, part of the general decline that is to be seen in this item of trade in all parts of the earth. Germany had a few years ago a vast number of bicycle factories doing a large business. Many of these have gone wholly out of business or are carrying automobiles and other lines, more or less to the exclusion of the bicycles. About six bicycle factories were in operation in this Consular District a year ago. Now several of them have wound up business or are in new lines. The bicycle business is reported dull in all parts of Europe. No other trade in Germany in which Americans have sought to obtain a footing has suffered as much as the result of sending inferior goods as the bicycle trade. The American bicycle, above any other article offered for sale here, is under a cloud as the result of poor goods sent here some years ago."

BERLIN: "The decrease in American trade in bicycles with Germany is not owing to any lack of information or knowledge as to the superior qualities of the American wheel. The bicycle business is in a most depressed condition throughout Germany, owing to the fact of the large production for some years past, which has supplied all possible riders with wheels. The Germans once having a wheel are not apt to change it for something newer, as is the case in America. There is also the fact that bicycle riding, which was for some time very much in fashion, has become an old story. Bicycle dealers report that there is nothing doing either in German or American wheels, and that they are turning their attention to automobiles, sewing machines, etc."

CHEMNITZ: "The bicycle business in Germany is in a bad condition. Factories in this city which employed from 400 to 500 men in 1895 get along now with 50 to 100. The concerns have gone into the building of other kinds of machines. The wheel has almost ceased to be a luxury, and is only looked upon as a means of locomotion. Nevertheless, I believe this market will pay if the proper sundries are sent here at low prices. American wheels received a 'black eye' some years ago by some one sending to this market the worst lot one could imagine. The newspapers took up the question and published all sorts of rubbish about American wheels, and the result was very injurious to the American export trade."

COLOGNE: "In my opinion the market for American wheels in this country has been almost ruined, principally on account of the large number of cheap bicycles which have in the past been sold in Germany. The bicycle business in this country is stagnant, and the supply seems to far exceed the demand. The prices are in some cases 33 1/3 per cent lower than last year."

AIX-*LA-CHAPELLE*: "The loss in exports to Germany is due to the fact that the upper and middle classes no more use bicycles as being the proper thing, the one class using automobiles and the other arranging or waiting for them; therefore the sale of bicycles is now confined to the work-

ing classes, and only cheap machines are in great demand."

Belgium.

LIEGE: "I have to say that as for this Consular District, and I think it holds good in this part of Europe, the bicycle industry has been so much overdone that it is badly demoralized. The home production has so glutted the market that prices are cut until the profits are so small that many manufacturers and dealers have been ruined. Many of the factories here have been equipped with American machinery, and are in general in position to manufacture good machines very cheaply. From 75 to 130 francs (\$14.48 to \$25.09) will buy a very good wheel, and for from 175 to 250 francs (\$33.78 to \$48.25) a fine chainless wheel can be bought. Quite a large number of American wheels have been sold in this Consulate, but the difficulty in getting parts when needed and the difficulty in getting bicycle repairers to repair an American made machine are obstacles in the way of their general use. One dealer not long ago offered me a wheel for which he paid \$20 in the United States for 100 francs (\$19.30), after paying freight and duty. Automobiles are now receiving the greatest amount of attention, and it looks as though there was an opening here for a thoroughly practical, easily handled, medium priced machine. Most of the automobiles here are very clumsy affairs. Your publication may be just the thing to revive anew the interest in the American wheels, which are recognized to be the best made, and if the matter of securing parts and getting them repaired was overcome there would be a fair market for them here."

France.

LIMOGES: "The decreasing exportation of bicycles from America to this Consular District is due to the fact that fewer machines are used to-day than were in use five years ago. They are going out of fashion. Certain English houses that have gone into bankruptcy are offering their stock at ridiculously low prices. There is, however, an ever-increasing demand for automobiles and autocycles."

NICE: "Dealers in the United States should aim to do business direct, as goods passing through too many end by costing enough to prevent a competition that would otherwise exist. Automobiles of all sizes and petroleum tricycles are very widely sold here now, and this has no doubt somewhat reduced the demand for bicycles."

Spain.

CARTHAGENA: "Cycling is a very small item in this section. Bad roads, heat, excessive dust and a disinclination for active exercise are the contributing causes. There are a few bicycles in use, but no regular dealer in them; sometimes one or two are exposed for sale along with sewing machines or hardware. There does not seem to be much show for American goods under existing conditions. With no treaty of commerce, United States cycles pay a duty here

of 84 pesetas per 100 kilograms, as against 70 paid by countries which have a treaty. There is no direct line of steamers calling here; therefore goods from the United States have to pay two freights, two insurances, etc. American houses mostly quote f. o. b. New York in United States currency, and ask for spot cash, while their European competitors quote c. i. f. at Spanish ports and sell on time. All these things count."

VALENCIA: "Several attempts have been made during the past two years to introduce bicycles of United States manufacture into Valencia, but without success, as far as concerns direct trade. The f. o. b. price of American cycles can compete with the most favorable offers of European manufacturers, but the difficulty is that an importer here never knows what an American bicycle is going to cost him by the time it arrives in Valencia, owing to the high transportation rates and duty, both of which items are not assessed on any fixed or intelligible basis at present, there being no direct steamer service between this port and the United States, and no commercial treaty between Spain and the United States. Besides, cycling has never taken root in this country."

BILBAO: "There is no interest whatever in cycling in this district. There is but one dealer here, and he works on a very small scale."

Italy.

MILAN: "The American bicycle sales in Italy have lost ground, owing to the steadfast refusal on the part of American manufacturers to comply with the wishes and taste of the Italian public and to accept the conditions of the dealers. To sell American machines the ground must be studied, as is done by other foreign importers. Agents should be carefully selected and their wishes observed as far as possible, otherwise they will push machines for other houses, who will give them the necessary assistance."

GENOA: "Owing to the mountainous situation of this city and its surroundings bicycle riding is not a sport of any consequence. A few years ago, when bicycles were more in fashion, several firms in this city started in this line of business, with a pretty good stock of American, German, English and Italian machines, hoping that they could have a success, but the result was a downright failure, because the hilly streets of this city do not allow people to enjoy bicycle riding."

Austria.

REICHENBERG: "There will never be a large export of American bicycles until more liberal terms are given. It has been impossible to introduce them here for the reason that the American factories demand cash in advance, with no opportunity to even see a sample of the wheel proposed to be introduced. This is doubtless the case everywhere in Europe. Our dealers must be equally liberal with the Germans and the English if they really want to sell their wheels abroad."

HAIDA: "The Haida Consular District contains many small towns and villages, being a densely populated district, but no trading city of any importance, and the bicycles used in this district are generally purchased in Dresden, Prague or Vienna, and, if imported, procured for the two former cities through Hamburg traders or commission men."

Equador.

QUITO: "In this mountain city of 80,000 inhabitants there is not a dealer in bicycles, and I don't think a half dozen bicycles. The streets are all paved with rough stones, and there is little comfort in a bicycle here. If I saw how I would gladly help you extend American trade. Then there is another trouble. This city is inland 315 miles, and no railroad, not even a road over which any kind of a wheeled conveyance can come. All bicycles, pianos, machinery, etc., have to be carried in on muleback or by Indians. When your export edition is printed next October send me some copies. I will try and put them where they will do some good—'seed sowed in good ground.' Send one English, one French and others Spanish. Not fifty persons here can speak English."

Mexico.

CIUDAD JUAREZ: "There is no demand for bicycles here, since there are no roads over which they can be ridden, and the entire northern section of Mexico is hardly worth giving any time to on the part of manufacturers of wheels. There is some demand for wheels in the City of Mexico and the large cities of the Republic further to the south."

CAMPECHE: "Campeche is no market for bicycles on account of being somewhat hilly and streets uneven. There are only about fifty or sixty in use, and they must be repaired very often on account of the bad roads."

GUANAJUATO: "Bicycles have no field here, or almost none, owing to the extremely hilly nature of the country and the almost entire lack of good roads."

CHIHUAHUA: "There is quite a number of wheels sold here, but none of the more reliable firms handle them."

CIUDAD PORFIRIO DIAZ: "A great many bicycles are used in this district, all of American manufacture."

Malta.

VALLETTA: "Malta has not contributed to the decrease in the sale of bicycles or bicycle sundries, as the trade here seems to be flourishing, and, if anything, on the increase. American goods are in the lead, and our sundries should stand an equal chance with those of other countries. Of course, Malta is a small place, and its trade not large enough to be perceptible in the sum total."

Costa Rico.

SAN JOSE: "Bicycles are used to some extent in this city, but the country roads are too rough for them. Costa Rica is a small country and the market is limited."

CHARGE OR NO CHARGE

Will the Latter Help Along the Revival? One Dealer's Opinion.

There was a time when, to popularize the then new air tire, the trade gave free air, free repairs, frequently free tires—all under the guise of repairs. That epoch passed, and now the rider has to pay for about everything he gets.

Even air is not free at the majority of stores—provided, of course, the dealer's pump, and frequently his time, are utilized to procure it. A charge is usually made, and no one will dispute that it is a perfectly legitimate one. There is no more reason why air should be given free than the tires themselves. Such is the view generally taken.

But there are exceptions to this, as to almost every other rule. The Bicycling World man happened to stop in a store recently, and found one of the dealer's repair men rigging up a new power pump. A few minutes' conversation developed the fact that it was intended to inflate tires, and was designed to be offered to the cycling public free of charge. The old pump had been worn out by much service, and the new one was a great improvement on it.

"But why make all this free?" asked the Bicycling World man. "Why not fix a charge for the pump, even if a small one, and make enough out of it to cover your work and time?"

"Wouldn't do," was the terse reply of the dealer. "The majority of riders would not pay for it. They want 'free graft,' and would either pump their tires themselves with a hand pump or ride with soft tires if they couldn't get free air. Besides, they would not be forced to do that. They would simply stop at some other store, and be accommodated there."

"Well, why not get the other dealers to charge, too? You have an association here, and if you all pulled together on this matter, as you do on others, you would win out. There is not the slightest reason why you should give something for nothing, so why not make a stand here?"

"It is doubtful if the other dealers could be persuaded to act together on such a matter," said the dealer, reflectively. "Not only that, but I am not sure that it would be a good move, or that I would be in favor of it myself."

"But it is the common practice in other cities to make a charge for pumping tires," the Bicycling World man persisted. "Why is it different here?"

"I'll tell you. Things have reached the bottom in cycling, and we are all trying to bring about a revival. This season a strong effort is being made to induce people to ride more, and there is a good prospect of success. In fact, in spite of the bad weather, there has been a remarkable improvement

in the number of wheelmen, and wheelwomen, too, seen on the streets and roads. Now, if we took a different policy in this respect we would be making a mistake.

"We used to do too much for the rider. Gave him everything he wanted or could ask for—a little more sometimes, I'm afraid. Then, when the slump came, we changed all this. Went to the opposite extreme, in fact. Shut down on the gratis business all around. In some cases we drew the line a little too tight, and perhaps we suffered for it. At any rate, we suffered for something, and matters got worse instead of better.

"Now, I am in favor of trying the other tack. Free air is a little thing, to be sure, but it's little things that count. I have known people to give up a ride just because their tires needed pumping, and they would not take the trouble to inflate them with a hand pump. Others have come down to my store, where they knew they could get a big pump, inflated their tires—or had me do it—and gone on their way rejoicing. Some of them would have paid for the pump if I had made a charge, but the majority of them would have let the whole thing slide rather than do so.

"I'll tell you what would be a good scheme, and I think I'll try it," the dealer went on. "That is to continue to furnish the pump gratis, but to make a charge if we do the pumping. That is done in plenty of places, and I believe it would take all right here.

"There are plenty of men who would rather pay and get rid of the job of pumping, which is not a particularly pleasant one. It would be the same way with ladies and children—some of them, at least. At any rate, they could have their choice. I'll furnish the pump and the air free, and they will do the pumping or pay for having it done. How do you think that will strike them?"

The Bicycling World man was obliged to admit that there were two sides to this question, and that he was not at all sure that the dealer had not hit on the right solution of the problem. At any rate, his strong feeling that the pump users should pay for the privilege of using them was somewhat shaken.

Effects of Sunshine.

Indications multiply that business would be good did but the weather permit it. Whenever the sun appears for more than twenty-four hours at a stretch dealers report a gratifying increase in their business. Could they bespeak a week or two of fine weather, there is no telling how far this improvement would go. One dealer who is emphatically of this opinion is N. L. Blever, of Derby, Conn. He stated recently that the present season was one of the best he had experienced for a long time, notwithstanding the interruptions caused by rain. On a recent Monday morning he said that he sold three bicycles, had about thirty-five wheels to be repaired, and had sold fifty-one coaster-brakes since the beginning of the year.

COASTER-BRAKE INNOVATION]

Free Wheel Device That Permits Back-Pedaling Without Applying Brake.

It is a curious fact that the coaster-brake has never been altogether fancied by the British public. The coaster part is all right, apparently, but the brake has always been objected to by a very large number of riders. Hence the appearance of "free wheels," i. e., coasters only, and the fitting of separate brakes.

It is said that this aversion to the device in its dual form is due to a feeling that so much mechanism should not be put within such a small compass as a bicycle hub, and to a fear that the braking part will fail when it is most important that it should work. Experience in this country demonstrates that these propositions are not based on sound premises. The devices work almost perfectly, trouble being practically unknown.

Notwithstanding this, there is on the other side an insistent demand for something different. One of the chief complaints is the inability to back-pedal. Touching on this point, the Irish Cyclist says:

"There is a splendid future before the clutch which will not only give a free wheel, but permit of back-peddaling at the same time. We had the privilege of inspecting such a contrivance recently, and, if it turns out a success, believe that it will fill a great want. The machine will drive forward and backward instantaneously; when the pedals are kept at rest a free wheel results. The whole thing works automatically, there being no levers.

"Now, the advantages of such a contrivance are manifest. It simplifies the bicycle—it renders two brakes unnecessary, it gets over the necessity for strengthening the machine so as to stand the strain of a strong back-peddaling brake, and, last but not most important, it appeals to every cyclist who rides a bicycle.

"No doubt at present the ordinary free wheel is very much in vogue, but there is a very large proportion of cyclists who strongly object to relinquishing the power of back-peddaling, and who are not particularly keen about free-wheeling. This class would welcome such an innovation, which would enable them to ride a machine practically similar to that they are used to, and at the same time give them the power of back-peddaling, while to the present-day enthusiastic free-wheeler the innovation would also appeal very strongly."

Fowler Goes Into Gas.

Little surprise will be caused by the announcement that Frank T. Fowler, of Chicago, is to retire from the bicycle business. He will devote his time to the manufacture of acetylene lighting and heating plants. Although he was once a well-known figure in the trade, Fowler has done little during the past couple of years.

OSMOND A MOTOR BICYCLIST

England's Ex-Champion a Convert—Extortion on "Extras"—Danger in Mufflers.

London, May 22.—The Werner bicycle is becoming more and more popular, and during last Sunday I met several machines of this make in the London district. Old racing cyclists are so far the people who take most kindly to the motor bicycle, and on Sunday I met F. J. Osmond going well on one of these machines. I also saw Lewis Stroud similarly mounted. The speediness is the attraction, no doubt, as when a cyclist who in years gone by used to leave the crowd finds that the crowd are turning the tables he looks to the motor bicycle as a sort of salvation. Apart from this natural feeling, the man who is used to travelling at high speeds finds that ordinary cycling ceases to give him pleasure when such speed rates become positively great efforts. It is this reason which accounts for so many once enthusiastic wheelmen giving up the pastime. The motor bicycle is fast coming to the rescue.

The prices asked for one or two of the two-speed gears devised for fitting to motor tricycles are indeed a little stiff. For instance, the other day I saw a very neat device consisting of only a couple of wheels on a small shaft, which wheels geared with others on the motor shaft. These were inclosed in a split casting forming a box over the gear and also the bearings of the small shaft. The cost of the gear, without fitting to the machine, is \$60, a price which is certainly very high, having regard to the fact that the amount of work in the gear is comparatively small. The gear wheels could all have been cut by any of the wheel-cutting firms for a couple of dollars, and the turning up of the two shafts and boring out the bearings of the split casting should not amount to much more. I am afraid that many embarked in the motor trade look upon motorists as fair game, and forget that in order to put the trade on a really sound footing ordinary business principles must be followed.

As an instance of this I may point to a case I heard of last week. A man brought out a clever and simple speed indicator suitable for motorcycles and cars, but put the price a little high. As a result he did not sell so many as he thought he would have done. In fact, he only disposed of a dozen gross or so during some six months, and he became disgusted, not because he was losing on the transaction, but because his profits were not 100 per cent. I hear that he will not reduce the price of the instruments, so that possibly his market will be more limited now, as most of those who can afford long prices have already been supplied. There are a great many people who would buy the

indicator at a reasonable figure, but will not give fancy prices, for the simple reason that they cannot afford to do so.

We have had another accident this week, owing to the splitting of the exhaust box attached to a motor tricycle. The broken parts came in contact with the rider's leg and inflicted some nasty injuries. It is quite clear that on all machines provided with a switch on the handle—and consequently all motorcycles—should have the exhaust boxes, or silencers, extra strong. A charge of unspent mixture is pumped through into the silencer during the time that the switch is turned off, and, the current being turned on again, the first fired charge from the cylinder explodes the mixture in the box, usually only making the loud pop we are accustomed to hear, but occasionally causing fracture of the sides or end of the exhaust box. On cars this happens perhaps more frequently, but does not do so much damage, as the box is below the floor, and hence cannot inflict injuries on the driver or passengers. The motocyclist, however, has to ride with the silencer unpleasantly close to his leg in the event of a burst.

The folly of attaching any of the motors to the frame of an ordinary pedal-propelled safety has already been demonstrated, and last Sunday I saw a rider wheeling home a wreck thus caused. He had bought one of the small motors and the complete tanks, etc., and also fairly heavy batteries. The whole of this mechanism he had attached to the frame of his ordinary machine, and as the latter was a fairly speedy mount the motor took it along in fine style. The result, however, became apparent when he examined the machine after a short stoppage, and found that one of the tubes of the frame was badly cracked.

I have been experimenting with a new kind of compression tap invented by Mr. Hudd, whose starting value is now generally admitted to be a really good thing. The tap does not claim to be so good as the valve, but it is a go-between, and can be fitted into any De Dion cylinder in place of the ordinary compression tap. No enlargement of the hole is necessary, in which respect it scores over the starting valve, in order to fit which the hole has to be enlarged to what is known as quarter-inch gas thread, and this, I fear, may leave the walls of the gland in some cylinders perilously thin. The tap resembles the ordinary De Dion, but on the nozzle is screwed a tube of steel, the end of which is closed, and the sides slotted in four places. In this tube is placed a small steel ball, and the end of the nozzle of the tap is turned to form a seating for the latter. In operation the tap works in the following manner: When opened the compression is released, as the ball is merely blown upward to the end of the tubular continuation, and the mixture from the cylinder escapes through the slotted sides of the tube. When

the down stroke of the piston takes place the ball automatically closes the tap, and thus a properly constituted mixture is drawn into the cylinder from the carburetter only, and not partially from the atmosphere, as it is when the ordinary compression tap is opened. Thus, when the motor is started the mixture has not to be immediately altered, as with the ordinary tap, but remains more or less constant. A motor fitted with this tap certainly starts remarkably well and extremely quickly. I have tried the tap on two engines which are notoriously difficult to start, and in each case with complete success. The beauty is that any agent can fit the tap at once, as it is merely a question of screwing out the old one and screwing in the new. The price, too, is reasonable—namely, \$1.

Makers Win in Irish Suit.

What is almost certainly the final decision in the famous Irish guarantee case of Williamson versus the Rover Cycle Co. has been rendered. The Irish Court of Appeal has delivered judgment in this case, unanimously dismissing the plaintiff's appeal, and confirming the judgment of the King's Bench Division in entering a verdict for the manufacturers.

The case has been hard fought on both sides. The plaintiff, Williamson, bought a second-hand Rover bicycle from an Irish dealer, and a year or more later it broke at the fork, throwing him and injuring him severely. He sued for damages and won his case, but lost it on an appeal; from this decision he appealed, and now gets bowled out in the court of last resort.

Everything hinged on the interpretation of the guarantee. The defendant claimed that the breakage was due to abuse, while Williamson's lawyers held that the maker of a bicycle was responsible, under the Common Law act, regardless of the terms of purchase and of everything else. The British trade will hail the final decision as a great victory.

Doesn't Want to go Back.

To the rider who has never used a coaster-brake his fellows more fortunate in this respect extend sympathy; and this notwithstanding the pitted one is entirely unconscious of any lost pleasure. Never having experienced the joys of coaster-braking, he is not discommoded by having to pedal all the way.

But a rider who has once given the device a good trial never wants to go back to the fixed gear. He soon acquires the habit of coasting at all times when it is not desirable or necessary to pedal. This is done unconsciously, not the slightest effort of the mind being required to make the necessary movement. Put such a rider on a fixed-gear machine, however, and he will be continually trying to coast. When he finds he cannot he reflects on the absurdity of being obliged to continue the rotary motion of the pedals when absolutely no power is being put into them.

CAUSES AND CURES

Ills to Which Motors are Heir and How They may be Remedied.

With the increased and increasing use of motorcycles, the full meaning of "motor troubles" is meeting with a slow but sure measure of appreciation. Like everything else, the motor requires care, and more of it than is given to anything that goes to make up a bicycle.

Lack of care is the chief cause of motor troubles, by which is not meant that troubles arising from other sources are not possible. It is easy enough for a motor or anything else to go wrong; it is not so easy to locate the source of the mischief.

In this respect the Crest Mfg. Co. have performed a considerable service by printing a pamphlet devoted to the very subject. It is so helpful that, aside from the advertising of Crest productions, it merits general circulation "for the good that it will do." It follows:

"The first rule that the owner of the motor should follow is the study of what a gasoline motor is, its principles of working, and then when these little difficulties arise they can be easily remedied, and all these vexatious disorders can be located.

"If a motor misfires and stops the trouble may arise—

"First—By an imperfect mixture, which may be too little or too great an amount of air for the gas.

"Remedy.—A readjustment of the air and gas. This you will soon learn by experience. Although a motor will work from five to eleven parts of air to one of gas, eight to one is the proper mixture, and that can easily be learned by the sound of the exhaust.

"Second—The use of improper gasoline below the standard of 76, or by the presence of water in same.

"Remedy.—Use a Crest densimeter and trade with people who carry fresh gasoline.

"Third—The plug terminals too far apart or too near together.

"Remedy.—The plug terminals should be about the thickness of a card apart.

"Fourth—The contact breaker or interrupter adjusted wrong, or its surface corroded or worn.

"Remedy.—Your contact breaker should be cleaned, and by turning the motor over by hand it can be noticed whether it is making the proper spark. Remove all corrosion from the contacts and see that the spring is stiff, so that the contact is perfect.

"Fifth—A broken wire in the electric circuit.

"Remedy.—Put in new wire if broken, or solder the wire together.

"Sixth—A breakage of the insulation of the plug.

"Remedy.—Put in a new plug; the plug should be changed every few weeks and often tested.

"Seventh—Loose wires on the different terminals.

"Remedy.—Be sure all terminals are tightened and wires are cleaned. It is a good plan to tape the terminals.

"Eighth—Carbonation of the plug end, so as to cause short circuit between the terminals.

"Remedy.—Clean the sparking plug from every atom of carbon by scraping with your knife.

"Ninth—Short circuit caused by plug points being wet, caused by water condensation. This will happen when the motor is started in very cold weather.

"Remedy.—This is a very rare occurrence, and will only happen in extremely cold weather. The remedy is obvious.

"Tenth—Failure of battery, which may be caused by a battery being accidentally short circuited and destroyed or the battery worn out.

"Remedy.—A new battery. Everybody should have spare batteries to put in the place of the old one. The price of batteries being only \$3, it is well to insert fresh batteries, and not attempt to get too much life out of them.

"Eleventh—Short circuit by the use of poor insulated wire or exposed terminals in damp weather.

"Remedy.—Use our extra heavy covered wire, the price of which is 15 cents per foot. It is useless to use the ordinary wire as purchased in supply stores.

"Twelfth—Improper timing of the advance sparking device.

"Remedy.—If you have occasion to remove the sparking device pay particular attention to the 'witness' marks, so that it goes to the proper place again.

"Thirteenth—Overheating; due to running the motor at its slow speed.

"Remedy.—This is easily cured by experience. Keep your motor as cool as possible by not allowing the conditions to arise that overheat it.

"Fourteenth—Defective lubrication; due to a lack of oil or the use of oil not adapted for gasoline motors.

"Remedy.—Use Crestoline lubricating oil and you will have no trouble. A great deal of trouble arises from the use of bad oil.

"Fifteenth—Defective valves; caused by corrosion and putting of the valves and seats, which may be caused by the use of poor gasoline or imperfect mechanical wear of valves.

"Remedy.—The grinding of these in the seat requires some skill, and do not attempt to do it unless you ask advice from people who are familiar with grinding valves. Don't use emery on the seats. Use very fine crocus. Keep the valve well on its seat with a slight pressure, and turn your screwdriver carefully.

"Sixteenth—The failure of either the springs of the exhaust or inlet valves.

"Remedy.—Insert new springs. It is well to carry spare springs for this purpose.

"Seventeenth—Imperfect compression; due to worn piston rings or leaky valves.

"Eighteenth—Is the breakage of parts of the motor from any cause.

THE CRAFTY CUSTOMER

How That Numerous Kind is Dealt With by an Equally Crafty Dealer.

"See that man?" was the dealer's salutation to the Bicycling World man, as he pointed to one just leaving the store. "Well, he thinks he's an awful keen hand at a bargain and is always going to get the best of me or some other dealer. But he isn't in this instance, and I'll tell you why.

"He wants to buy a bicycle, and is perfectly able to pay for a good one. But it would never do for him to give the list price or the price a dealer asks him. He wants a discount, wants to buy cheaper than anybody else can. Why, I almost believe he would rather pay an extra \$5 bill than acknowledge that he was no better bargainer than the average man. It would almost break his heart.

"First I tried to sell him a good machine—one that he could be proud of always. But I would not take a cent less than \$40 for it—the list price—and that settled it.

"I have run across that sort of customer so often that I am prepared for them now. I have on the floor two machines, both produced in the same factory and alike in all essential particulars. But they have different nameplates and the equipment is changed around a bit, the finish is different, etc. To the man who does not know very much about wheels they look like different machines.

"Oh, yes, and they are priced differently, too. That is part of the game. Number One is \$17, and at or about that figure it is sold all over the city. Number Two is \$30, and, unless some one else is working the same game, is never sold for anywhere near that price. Well, I showed my man Number One, and he promptly turned up his nose at it. He had no use for such cheap stuff, he said, and would not be seen riding such a machine. What he wanted was a good machine, but he wanted to buy it right.

"So then I took him over to Number Two. I cracked it up in great shape. It was made by one of the best factories, was beautifully finished, well constructed throughout, and would make a thoroughly satisfactory machine. Of course, it was not as good as the \$40 machine, but it was all right, and to him I would, as a special favor, put it at \$27. To get this price he must close the bargain at once and promise me to preserve secrecy about it. If he did not want to do this I would have to call it all off.

"Would you believe it, he closed with me and I am to send the machine to him. He thinks he's got a bargain, and is just tickled to death at his cuteness. He'll take more pride in that machine than he would in the \$40 one if he had bought it. He will tell all his friends about it, and some of them will laugh at his imbecility.

"As for me, I get \$10—or, at least, \$7.50, counting the difference in the equipment—more for the machine than I could have got for it from a straight purchaser. If the man had only known, he could have bought the \$17 machine and got almost identically the same bicycle. But he thought he was smart.

"Was it right? Yes, and serves the old cunmudgeon right, too. I would have treated him squarely if he would have let me. Besides, if I had let him slip through my fingers some one else would have fooled him."

RACING

Being now the only purely cycling journal in the field, the *Bicycling World*, beginning with this issue, will again devote a share of its attention to cycle racing. Only those men and events and performances who or which rise or have risen above mediocrity will, however, be noticed. To earn mention the event must be of more than local or neighborhood importance, the man must have a reputation or do 2:10 or better, and the performance be out of the common; in short, to be mentioned in the *Bicycling World's* racing column will be an honor; whatever it is, must be "something"; whoever he may be, must be "somebody."

Mud inches deep and lowering clouds delayed but did not prevent the historic Irvington-Millburn 25-mile handicap road race on May 30, it being the twelfth of the series. Some two hours late, the first man was sent off just as the sun broke through the clouds, and by the time the race was finished the road was fine in parts and fair in others. The winner was, as usual, a dark horse, David Turner, of Paterson, a thirty-year-old man and a rider of long experience. Starting from the 4:30 mark, he beat out George W. Miller, 4 minutes. For the time prize there was a fine race between Achorn, Schlee and Van Velzer, all scratch. Schlee was awarded second place, although the finish between him and Achorn was so close that in the absence of a tape it was a toss-up which won. Van Velzer was 14 seconds behind, having changed wheels twice en route. More than 10,000 people witnessed the race, and the number would have been very much greater had it not rained all the night before and looked as if it would continue in the morning of the race. Of the 100 entries 76 started.

Considering the muddy condition of the course, the times were very good. Achorn, who completed the twenty-five miles in 1:12:45 1-5, with Schlee 1-5 of a second later and Van Velzer 14:45 behind Achorn. The winner of first place, Turner, covered the course in 1:15:20.

The winner, Turner, rode a Yale bicycle.

Close and exciting finishes marked the racing at Vailsburg, N. J., on June 2, which took place in the presence of over 7,000 people. In the quarter-mile professional, flying start, Kramer beat McFarland by half a wheel after leading all the way. Fisher, who crossed the tape third, was disqualified for the day for indulging in team work for the purpose of aiding Kramer. In the 5-mile professional handicap McFarland led down the straight, but was passed by both Freeman, 50 yards, and Cooper, in a close finish. Among the amateurs Schlee defeated Bedell by inches in a three-cornered match race, Scheiber being the third man. Schlee and

Bedell each won a heat, the first one being covered in 2:09 1-5.

The metropolitan district has racing a-plenty promised for it this year. The latest entrant in the field is Madison Square Garden, which is now being fitted up for an extensive summer season. Under the management of Powers & Kennedy, it is proposed to run meets every Monday night and on a number of Saturday afternoons. Paced races will be the feature, and the big men will be the participants. A board track of unusual strength is being put down, and it will be five feet wider than any indoor track heretofore constructed. During the meets the glass roof will be removed and the windows opened, so that the spectators will have plenty of air.

Postponed from Decoration Day, the Coliseum at Springfield, Mass., was successfully opened on the afternoon of May 31. The principal event was a three-cornered, 15-mile motor-paced race between Perry, Rutz and Alexander, the finish being in that order. The time was 25:43 2-5. Perry's motor machine was the only one of the six used that did not give trouble, and to that fact the victory was partly due. That the amateurs are riding fast is shown by the times in the half-mile open and mile handicap. W. C. Dobbins, of East Orange, N. J., won the first in 1:05 3-5, and D. Sullivan, of New York, 10 yards, the latter, in 2:07 3-5.

At Vailsburg, N. J., on May 30 the novelty was a "bumping handicap," the first, and perhaps the last, to be run in this country. After the entries were thinned out by trial heats the survivors were placed 40 yards apart in a 2-mile race, and each man caught, or "bumped," had to retire. At the finish Downing was uncaught, and, being the limit man of those remaining in the race, won, with Kramer second and McFarland third. Kramer also won the half-mile, in 1:04 3-5, Collett getting second and Jacobson third. The Bedell brothers won a four-cornered team pursuit race, unlimited, covering 3 3/4 miles in 7:01 1/2.

At the opening of the new Revere Beach track, Boston, on May 30, Moran won the principal race, before 5,000 spectators. It was a 25-mile motor-paced race between Elkes, Moran and Caldwell, and Elkes had a good lead at 14 miles, when he was violently thrown by the puncturing of his tire. Moran continued, and won the race in 42:25 3-5. Caldwell quit at 20 miles.

At Baltimore on May 31 Michael had no trouble in defeating Watson Coleman and O. S. Babcock in a 20-mile motor-paced race by 3:23 miles in 33:15 1-5. Coleman and Babcock rode in relays of 5 miles each, but were no match for the little fellow. Babcock appeared to be out of condition, while

Coleman seemed to be unable to obtain sufficient pace from his motor machine.

Tom Linton, the fellow-townsmen and old-time rival of Michael, arrived on the St. Louis last week, determined to have another try at the American racing game. He brought with him two motor tandems and four French pacing men, and will make his first appearance at Boston on June 11.

At Charles River Park, Boston, on May 30, Nelson defeated Champion and McEachern in a 25-mile motor-paced race, his time being 39:08 1-5. Champion was 1 mile and McEachern 2 1/2 miles to the bad at the finish.

At the intercollegiate championships, run at Berkeley Oval, New York, Yale captured the championship, with 30 points; Princeton second, with 17; Pennsylvania third, with 7, and Columbia fourth, with 1.

At Woodside Park, Philadelphia, Edward Taylore signalled his reappearance in America by defeating Cadwell, the Hartford ex-amateur, in a 20-mile motor-paced race. The time was 36:46 2-5.

The Retail Record.

NEW STORES.

Tilton, N. H.—C. J. Richards.
Lake Mills, Ia.—Ed. Henderson.
Brockton, Mass.—Fred Magoon.
Bay City, Mich.—C. H. Gaylord.
Dunkirk, N. Y.—Warren Wilcox.
South Gardner, Me.—J. P. Eastman.
Menominee, Mich.—Harvey Hanson.

CHANGES.

McPherson, Kan.—Temple Bros. succeed W. S. Young.
Burton, O.—Parmelee Bros., sold out.
Belmont, N. Y.—Nicholson & Fay, dissolved partnership.
Salmon City, Idaho.—J. W. Yearlan, gone out of business.
Wichita, Kan.—Musselman Bros. will discontinue.
Pomona, Cal.—Hills & Tubbs, dissolved partnership, Mr. Hills continuing.
Anderson, Ind.—Elk Cycle Co. has decided to go out of business.

Tecumseh, Neb.—McDougall & Smith succeed Jolly, McDougall & Smith.

Greensburg, Pa.—Greensburg Hardware & Supply Co. succeed Shields, Painter & Sloan Co.

New Albany, Miss.—M. M. Kings succeeds Fred King & Co.

Sterling, Ill.—T. G. Seely succeeds Meister & Seely.

Douglas, Neb.—C. E. Cowles & Son succeed Mathers & Cowles.

Dallas, Tex.—B. E. Boren succeeds Edgar Boren.

Steamboat Rock, Ia.—Cramer Bros. succeed F. H. Stearns.

EMBARRASMENTS.

Slater, Ia.—J. M. Erichson, filed petition in bankruptcy.

APPEARED VERY MYSTERIOUS

**But Proved Simple When Investigated—
How Solution was Hit Upon.**

Simple explanations of apparently mysterious occurrences are frequently discovered, and a good laugh is the result. Such a case came under the *Bicycling World* man's notice the other day, and is worth relating.

A rider who has a machine fitted with a coaster-brake came to the conclusion recently that the chain needed cleaning. He took it off, put it overnight in a can of kerosene, lubricated it and put it on again. Then he started for a short ride, his chief purpose being to revel in the smooth running of the chain. He had only gone a few yards, however, when something happened. There was a sudden click and jerk, and the cranks stopped revolving, although the machine still continued its progress.

All efforts to push the cranks forward were futile. Evidently there was something wrong with the coaster-brake. The remark of a repairman, which at the time seemed entirely unwarranted, occurred to the rider.

"Them coaster-brakes are all right for a while," he had said, "but sooner or later they go wrong, and the best thing to do with them is to chuck them away."

It might not be quite as bad as that, but there certainly did seem to be something wrong with the device. A dismount was made, but an examination revealed nothing. The up crank could not be pressed down. Finally it was turned back with the hand, and then turned forward again, with surprising results. It ran freely and smoothly—just as it should have done, in fact.

Ruminating on the strangeness of the matter, the rider mounted again and rode off. But he had not gone a hundred yards before the self-same thing happened again. The cranks stopped and could not be forced forward. But when they were turned back again and then pushed forward they revolved all right. Once more getting on the machine, the rider waited, resolved to try a trick of his own. So, when he felt, almost instinctively, that the catch was coming again he jumped hard on the descending pedal and managed to force it past the obstruction, whatever it might be.

But the next time he was caught napping again, and had to dismount and reverse the cranks. Consequently he was as much at sea as ever. It certainly was mysterious. There must be something the matter with the coaster-brake device, but what it was he could not tell.

A few days later he took the machine to a repairer to have a new tire put on it. He mentioned that he thought there was something wrong with the coaster-brake, and said that it had better be looked into. Upon getting the machine again he was puzzled to be told that the coaster-brake was all right.

"But," said the man, "I fixed that chain bolt of yours. It was sticking out, and might have caught your crank and given you an ugly fall. I filed it off close to the nut, and it will give you no trouble now."

Instead of throwing light on the subject, this but added to the darkness. A trial of the machine made matters worse, for it ran perfectly. A ride of twenty-five or thirty miles demonstrated conclusively that the trouble was entirely removed. What connection could there possibly be between a chain bolt carelessly placed, with the protruding end in the way of the closely fitting crank, and an erratic coaster-brake?

Suddenly a light broke on him. There was a direct connection between the chain bolt and the coaster-brake. It was this way: The crank, of course, travelled faster than the chain; consequently it caught up with



MORGAN & WRIGHT TIRES
ARE GOOD TIRES

NEW YORK BRANCH: 214 216 WEST 47TH STREET.

the link of the chain that had the bolt inserted in it, although it would take a considerable number of revolutions before this was done.

When the crank struck the bolt the latter exerted sufficient pressure on the former to check it. The effect was the same as if the rider had stopped pedalling and begun to coast; the crank remained stationary, the chain did the same, the machine running on meanwhile.

This being the situation, there was only one way out of it: If the crank was turned backward, the chain bolt remaining in the same position, the two were no longer in contact. Then when the crank was pushed forward again the bolt would have moved sufficiently for the crank to clear it. Of course, the crank would catch the bolt again, but not for some little time. Then the entire performance would have to be gone through with again.

All of which goes to show how little things magnify themselves, and how difficult it is sometimes to arrive at a correct solution of seeming mysteries.

BUSINESS IN BRAZIL

**The Methods Necessary to Obtain it—How
Some Goods are Side-Tracked.**

"There are comparatively few American goods sold here, even in lines in which we can compete," says an American writing from Rio Janeiro.

"If American manufacturers want to do business here they must send their own representatives, who, if they do not speak Portuguese, must have a thorough command of Spanish. There are no commercial agencies here, and the representative must therefore investigate and pass on his own credits. The trade here must be visited at least once a year.

"If a firm cannot afford to send a man here to represent it alone, then five or six American firms should unite in sending a man to represent them in the entire country, making his headquarters in this city and visiting all of the trading cities once or twice a year. Such a man's expenses, outside of his own salary, but covering office rent, clerk hire and his living and travelling expenses, will figure to from \$3,500 to \$4,000 per year.

"A large number of American manufacturers are represented here, but very few of them get the amount of business to which they are entitled. A great many of the business houses, retail more than wholesale, try to get agencies; and, what is more, have them. If any one comes to their place to buy they will sell, but they do not hustle for business, and, besides that, they are not in a position to sell to other dealers.

"Most of the firms, in the machinery or supply lines, for instance, are English or German, and while they are agents for European houses they have managed to get the exclusive agencies for competing American firms. It is easily imagined how much business these American manufacturers do. The American manufacturers represented here do not even know if the people representing them ever send a man to other parts of Brazil.

"If American firms want to do business here, let them do as above suggested; but let them be very careful as to whom they send; let them be representative Americans, men born in the States."

Some of Griggs's Creditors.

Among the debts of Arthur Griggs, the New Haven dealer whose failure was recorded in the *Bicycling World* last week, are the following: A mortgage on a shore cottage for \$652.50; a second mortgage on the same for \$496.76, a mortgage on premises in Edgewood avenue for \$2,573, loan on an insurance policy for \$263.75, National Cycle Co., of Bay City, Mich., for \$2,310; Gendron Wheel Co., of Toledo, O., \$343.78; C. B. Barker & Co., Ltd., \$347.13, and the Wagner Typewriter Co., \$847.

The Week's Patents.

674,951. Ice Velocipede. Axel W. Blom and Anders F. Nordquist, New York, N. Y. Filed Oct. 5, 1900. Serial No. 32,109. (No model.)

Claim.—1. The combination with the frame comprising the front rearwardly inclined upright, rear forwardly inclined upright, and upper and lower horizontal connecting bars, said lower connecting bar divided for the driving wheel, of the steering post in the front upright and provided with handles at its upper end and mounted on a skate runner at its lower end, a skate runner carrying the rear upright, the front fork connected to the front upright, rear fork supported at the rear upper part of the frame, driving spur wheel having its axle mounted in the extremities of the prongs of both forks, driving sprocket wheel having pedal cranks, and mounted behind the driving wheel, sprocket wheel on the driving-wheel axle, driving chain, and the seat on the upper rear part of the frame.

675,067. Changeable-Speed Gear. Marion L. Nichols, Westfield, N. J. Filed May 28, 1900. Serial No. 18,226. (No model.)

Claim.—1. A vehicle train of gear, comprising driving, transmitting, cross and driven shafts, bevel gears interconnecting the driving, transmitting and cross shafts, and spur gears connecting the cross and driven shafts, the gear upon the driven shaft being disposed intermediate its bearings.

675,164. Pneumatic Tire and Method of Making Same. Theron R. Palmer and Frank X. Berrodin, Erie, Pa., assignors to Pennsylvania Rubber Co., same place. Filed Dec. 10, 1900. Serial No. 39,397. (No model.)

Claim.—1. A method of making pneumatic tires, consisting substantially of making a tube or sheath of layers of fabric and rubber, inserting a loose rubber inner air tube therein before the ends of the tube or sheath are brought together and spliced to form a tire, and then placing the tire in a vulcanizing mould and expanding the loose inner air tube therein, and then vulcanizing the tire, substantially as set forth.

675,261. Hub Brake. George F. Barton, Elmira, N. Y. Filed June 12, 1900. Serial No. 20,069. (No model.)

Claim.—1. A hub brake comprising a sleeve adapted for reversible rotation and having oppositely disposed clutch members fixed thereon, a hub encircling the sleeve and carrying a brake drum, a clutch member upon the hub in operative relation to one of the members upon the sleeve, a ring in operative relation to the second member upon the sleeve, a brake band held at a point in fixed relation to the drum, and means engaged with both ends of the band for distorting the band to engage it with the drum, said means being operable by the ring when the latter is in operative relation to its co-operating clutch member.

675,285. Back-Pedalling Brake. Nathan E. Nash, Toronto, Canada. Filed Dec. 8, 1899. Serial No. 739,730. (No model.)

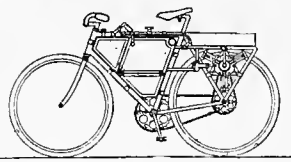
Claim.—1. In a bicycle a brake embracing in its construction a crank axle, a ratchet disk mounted on the crank axle and revoluble therewith, a brake shoe, an arm for the brake shoe pivoted to the frame of the bicycle contiguous to the wheel, a shaft journaled in bearings connected to the frame of the bicycle contiguous to the brake shoe, cranks connected to the shaft, a shaft journaled in the cranks, a lever journaled on the shaft connected to the arm of the brake shoe, a detent dog journaled on the second shaft engaging the ratchet disk, a hub pro-

jecting outwardly from the side face of the ratchet disk, a sprocket wheel loosely mounted upon the hub having slots concentric with the centre of the same, bolts passing through the slots and entering the ratchet disk, in combination with the driving wheel a sprocket wheel, loosely mounted on the hub of the driving wheel, a friction clutch adapted to rotate the driving wheel during the forward rotation of the sprocket wheel, the sprocket chain passing around the sprocket wheels of the driving wheel and crank axle, substantially as specified.

675,348. Charge Mixer for Internal-Combustion Engines. Charles H. Bryant, Lon-

Here's a Steam Bicycle.

While Copeland applied steam to his Star bicycle as early as 1886 and others did the same at later dates, several being heard of in various places since the motor bicycle became prominent. Rollin Abell, of Boston, Mass., is the first of these later comers to show so much as a drawing of his machine; mention of it was made in the *Bicycling World* several weeks since, and the accom-



panying illustration attests that it is not a bad looker.

Although a Bostonian, Abell is said to have built the bicycle in Brooklyn. The engine, of 2 horsepower, is claimed to weigh but fifteen pounds, and to be but two inches wide. It is a three-cylinder, single-acting engine of the brotherhood type; it is provided with a rotary valve which operates three cylinders in rotation with but one moving part. The rear hub is provided with a one-way clutch, so that in coasting the engine is thrown entirely out of engagement. The boiler is of the water-tube type, weighs fifteen pounds, and is but four inches wide. It fits inside the frame in front of the seatpost tube.

don, England, assignor to John Forrest Walters, Twickenham, England. Filed Aug. 23, 1898. Serial No. 689,340. (No model.)

Claim.—A combustion chamber having an air inlet at one end and a laterally projecting mixing chamber, a bent plate having one limb lying axially of the combustion chamber and the other in the centre of the mixing chamber, ribs on the walls of the mixing chamber and baffles on the plate and an oil pipe extending across the combustion chamber into the mixing chamber.

675,358. Support for Bicycles. Arthur McCollum, San José, Cal. Filed Dec. 22, 1900. Serial No. 40,820. (No model.)

Claim.—1. In a support for bicycles and the like, a supporting leg pivotally connected to the frame of the machine and adapted to be raised and lowered and also to swing laterally, and a bar pivoted to said leg and also pivotally connected to the frame, the point of pivotal connection between said bar and the said frame being other than the point at which said leg is pivoted and said pivotal points being relatively fixed, whereby as said leg is raised

or lowered said bar serves to swing the same laterally, substantially as described.

675,363. Engine. Carl F. Bergmann, Jersey City, N. J., assignor to the Foye Hub Motor and Automobile Co. of New Jersey. Filed July 2, 1900. Serial No. 22,270. (No model.)

Claim.—1. The combination with a cranked shaft, a wheel mounted to turn thereon and having substantially radial cylinders arranged in tandem pairs as high and low pressure, and ports leading from said cylinders to the wheel hub, a hub member fixed to the shaft and having peripheral grooves arranged in pairs, each extending around less than half the circle, the pairs of grooves being adapted one to register with the ports leading to the high-pressure cylinders and the other with those leading to the low-pressure cylinders, supply and discharge ports leading from said grooves and reversing valves controlling the flow through the ports in the fixed hub, substantially as described.

DESIGNS.

34,571. Lamp Body. Edwin M. Rosenbluth, Philadelphia, Pa. Filed April 17, 1901. Serial No. 56,328. Term of patent, 7 years.

Claim.—The design for a lamp body, substantially as herein shown and described.

34,579. Rear Triangle for Cycle Frames. George D. Green, Rochester, N. Y., assignor to James H. Sager, same place. Filed April 15, 1901. Serial No. 56,020. Term of patent, 14 years.

Claim.—The design for the rear triangle of cycle frames, substantially as shown and described.

Relic of Cushion-Tire Days.

Where do all the old bicycles go? This is a question frequently asked, and it occurred to the *Bicycling World* man recently at the sight of a cushion-tired machine, the conspicuousness of which was sufficiently great to attract wide attention.

It was a type familiar in the early nineties, when the diamond frame was beginning to make itself felt. It might well be termed the link between such machines and their predecessors, being a low frame with an absurdly short head, and with the tube through the diamond curved to follow the shape of the rear wheel. A long seatpost and handle-bar stem were further peculiarities, and a roller chain of Brobdingnagian proportions suggested an English origin. The tires were cushions, and it was ridden by a negro of large size who seemed to be pleased with the attention he attracted.

There were thousands of such machines in use at one time. Have they all found their way to the scrap heap, or are they still doing service in the more remote sections of the country? Who can tell?

Low Rates to the South.

Excursion tickets at reduced rates are now being sold by the Chicago, Milwaukee & St. Paul Railway to the prominent resorts in the South, including Jacksonville, Fla., Mobile, Ala., New Orleans, La., Savannah, Ga., El Paso, Tex., which are good for return passage at any time prior to June 1st, 1901. Information regarding rates, routes, time, etc., can be obtained on application to any coupon ticket agent of the Chicago, Milwaukee & St. Paul Railway. ***

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Germany Takes \$20,000 Worth.

The size of the shipment of cycle stuff to Germany last week is enough to generate renewed choler in the boycotting Yankee-phobes of that country. Attaining a value of more than \$20,000, it was easily the feature of the manifest, although France and England, also, accounted for generous purchases. The record in detail for the week, which closed May 28, follows:

Antwerp—38 cases bicycles, \$916; 30 cases bicycle material, \$1,105.
 Alexandria—3 cases bicycles, \$85.
 Amsterdam—30 cases bicycles, \$995.
 Azores—1 case bicycles, \$54.
 Brazil—1 case bicycle material, \$117.
 British East Indies—39 cases bicycles, \$1,954.
 Bremen—1 case bicycles, \$50.
 Beyrout—1 case bicycles, \$40.
 British possessions in Africa—57 cases bicycles and parts, \$1,469.
 British West Indies—15 cases bicycles and material, \$440.
 Cuba—27 cases bicycles and material, \$278.
 Christiania—7 cases bicycles, \$225.
 Constantinople—10 cases bicycles, \$360.
 Florence—2 cases bicycles, \$80.
 Glasgow—5 cases bicycles, \$250.
 Gothenburg—64 cases bicycles, \$1,850; 1 case bicycle material, \$25.
 Genoa—28 cases bicycles and parts, \$1,191.
 Hamburg—683 cases bicycles, \$19,093; 34 cases bicycle material, \$977.
 Hango—4 cases bicycles, \$102.
 Havre—408 cases bicycles, \$8,095; 83 cases bicycle material, \$4,635.
 London—208 cases bicycles, \$2,285; 123 cases bicycle material, \$4,541.
 Liverpool—65 cases bicycles, \$1,666; 2 cases bicycle material, \$30.
 Mexico—2 cases bicycle material, \$85.
 Malmo—7 cases bicycle material, \$200.
 Naples—2 cases bicycles, \$75.
 Portuguese possessions in Africa—3 cases bicycles, \$57.
 Rotterdam—127 cases bicycles, \$2,328; 28 cases bicycle material, \$912.
 Santo Domingo—2 cases bicycles, \$39.
 Stockholm—2 cases bicycles, \$65; 25 cases bicycle material, \$492.
 Southampton—54 cases bicycles, \$1,620.
 Smyrna—1 case bicycles, \$30.
 Trieste—7 cases bicycles, \$180.
 United States of Colombia—1 case bicycles and material, \$68.
 Zutphen—28 cases bicycles, \$943.

Attention Most Necessary.

It is a common mistake to imagine that a chain does not need much lubrication in summer. This season is perhaps the time of greatest need for some such attention. There is profusion of dust, which settles thickly on the chain, and grinds into all the working parts. The fine particles are often of extreme hardness, and act on the metal as emery powder would. They penetrate to every link, and at each revolution are ground hard between the opposing surfaces. Thus friction is set up, and the chain is worn out before its time.

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If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

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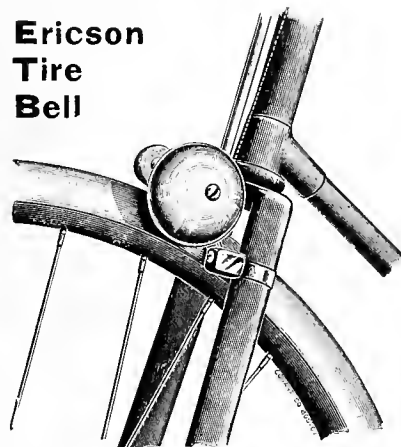
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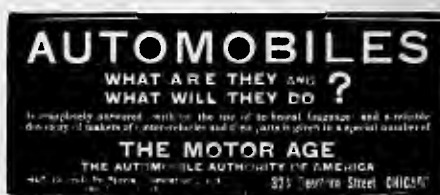
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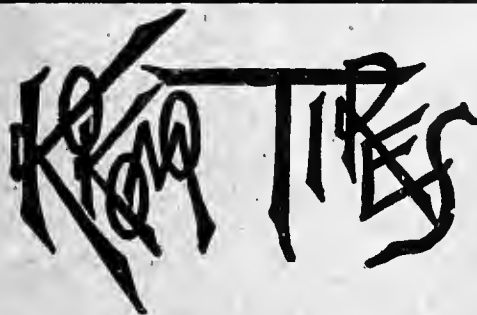


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JOBBER'S AND THE STEEL RIM

From THE BICYCLING WORLD, January 3, 1901.

While steel rims are still fitted to not a few American bicycles designed for foreign use, the sight of a wheel so fitted for use at home is so rare as to excite remark.

That there has existed even a modest demand for steel rims for domestic use has not been generally supposed; the fact that such a demand does exist and may be enlarged by a little cultivation was brought home to us this week.

Two jobbers, one of them from the Far West, both agreed that this enlargement of trade is easily possible. One of them, led to try the experiment by reports of troubles with wood rims, ordered a stock of fifty pairs of the steel article. All were sold within ten days. The experiment was tried late in the year, and the result was so satisfactory that the jobber in question means to make a more serious effort in the same line next season.

The fact may "suggest things" to other jobbers; indeed, with the increasing experiment and use of motorcycles, on which steel rims are in general use, the average jobber may well give a thought to the steel felly.

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there's nothing half so good as

Our Crescent Rims
made of "Swedoh" Spring Steel.

We'll be pleased to submit figures.

Of course you know all about our

"Brass-Lined, Anti-Rust, Safety Tubing."

If not, we are ready to supply information and demonstrate its superiority.

THE WILMOT & HOBBS MFG. CO., Main Office and Works, **Bridgeport, Conn., U.S.A.**

Business Established 1877.
Incorporated 1884.

New York Office, 258 Broadway.

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., June 13, 1901.

No. 11

YOUNG SAYS "COURAGE!"

But Trust Directors Decide on Further Retrenchment—Stearns at the Meeting.

Wall Street indications for the past few days showed that there was "something doing" in the affairs of the American Bicycle Co. The common and preferred stock of this company have been showing a steady decline for the past few weeks, the common stock falling to $5\frac{1}{8}$ on the sale of 500 shares, and the preferred to 26.

It has finally come out that the fluctuations merely foreshadowed the spirit of a meeting of the directors held on Tuesday of this week. Among those present at the session were President R. L. Coleman, Albert A. Pope, H. A. Lozier, A. Featherstone, A. G. Spalding, E. C. Stearns, Gardner M. Lane, of Lee, Higginson & Co., of Boston, and G. W. Young, president of the U. S. Mortgage and Trust Co. The meeting lasted all of Tuesday.

Somewhat of a commotion was caused by the appearance at the meeting of E. C. Stearns, whom the A. B. C. has included in its suit for \$200,000. Mr. Stearns did not remain long, however, retiring about thirty minutes after the meeting was called to order.

A financial statement was submitted to the directors, which was highly complimented by Mr. Young, of the U. S. Mortgage Co., and which, it is said, provoked no smiles.

A Bicycling World man had an interview with a man who is in a position to know what occurred, and he made the following statement:

"Owing to the rainy season and various conditions throughout the country, this has been a d—d bad year; as a result the American Bicycle Co. will pay no dividends this year. In fact, it is the intention of the company to close up several of its plants, thus curtailing the output, but it will be done as gradually as in the past.

"The company have already expended \$300,000 in the automobile branch of their business, and their income from all sources has been about \$90,000."

Among the visitors in New York who were interested in the meeting were A. L. Garford, president, and H. H. Johnson, chairman of the executive committee of the Automobile and Cycle Parts Co.

Maumee Creditors to Get Dividend.

Through the action of the Ohio courts last week the affairs of the defunct Maumee Cycle Co., of Toledo, are a little nearer settlement.

When the case against Colonel F. J. Cheney, one of the stockholders of the Maumee Co., was decided in favor of the First National Bank a short time ago he filed a motion for a judgment, notwithstanding the verdict. That motion has been overruled.

On the same day T. B. Terry, receiver for the Maumee Co., was given permission by the Common Pleas Court to pay the final dividends and dispose of the money he now has on hand as such receiver.

Terry has on hand \$8,288.85, but \$400 of this will not be in the distribution. The balance, \$7,823.85, will be distributed among fifty or sixty creditors proportionately to their claims, but not till after attorney fees and receiver fees have been deducted from the total.

Will Seek Foreign Trade.

M. H. Schonstadt, for the past seven or eight years in charge of Morgan & Wright's foreign department, is preparing to locate in England as a manufacturers' agent and representative of American goods. Before locating he will make an extended business tour of the world, covering Europe, Asia and Africa. He will sail on the 22d inst. From the 17th until the time of leaving he will be at the Broadway Central Hotel, this city, where he will be pleased to meet or hear from manufacturers seeking foreign trade.

Carlisle Dies Suddenly.

Charles H. Carlisle, superintendent of the Crawford bicycle factory at Hagerstown, Md., died suddenly on Thursday morning last. He was aged forty-three. He was seized with convulsions while eating strawberries and death quickly followed. The physicians attributed it to irritation of the brain superinduced by acute indigestion. Mr. Carlisle had been identified with the Crawford interests for a number of years. He leaves a wife.

Efforts to dispose of the American rights to the Compact or Singer motor bicycle patents—the one in which the motor is enclosed in the rear wheel—are now being made. A New York firm is in charge of the negotiations.

TIRE FLUID FIGHT

Cole Wins One Suit but Neverleak People Counter by Filing Two More.

Apparently the tire fluid litigation has only just begun, instead of being almost at an end. The Buffalo Specialty Mfg. Co., of Buffalo, N. Y., took the offensive last week, when they brought two suits against G. W. Cole & Co. Complaints were filed and subpoenas served in the United States Circuit Court.

Each charges Cole & Co. with infringing a patent owned or controlled by the complaining company. An injunction in each case is asked to restrain the Cole company from continuing the alleged infringements and damages for the loss claimed to have been suffered by the Specialty company as a result of them are also asked. One of the patents involved is for an improvement in tires and other inflatable goods. The other is for a tire fluid to prevent leaks in tires. Mentioned as joint complainants in one of the cases are the First National Bank, of Union City, Tenn., and the Canvas Decoy Co., both of which have interests in the patent involved in that case.

It will be recalled that the Buffalo Co. instituted suit against W. G. Shack, one of the seven members of the "combination," for infringement of the Duryea tire fluid patent, and followed this by a similar one for infringement of the Curlin patent. In the latter case a sweeping victory was won by the Buffalo Co., and the formal dissolution of the "combination" followed shortly after. The first suit has never been brought to a conclusion. The Buffalo Co. now attacks the Cole Co. on both patents.

Almost at the same time G. W. Cole & Co. had their inning. The case of the Buffalo Specialty Co. against G. W. Cole and J. N. H. Slee for alleged libel came up for trial in the Supreme Court, Trial Term, at Buffalo, on June 3, 4 and 5, and Judge Knepfink took the case from the jury and non-suited the plaintiff.

The American Bicycle Co.'s Milwaukee factory—the former Meiselbach plant—was badly damaged by fire on Friday last.

REDDING A WITNESS

He Who Has Been on Both Sides Gives Evidence About Bottom Bracket.

Aside from the merits of the case, the bottom-bracket litigation, based on the famous Smith patents, now being waged between the American Bicycle Co. and the H. P. Snyder Mfg. Co., is responsible for some curious changes of attitude.

Not the least peculiar of these is the position occupied by W. A. Redding, the head of the firm of lawyers having in charge the legal interests of the big company. This will be apparent when it is known that Mr. Redding was the attorney of the Pope Mfg. Co. until the absorption of that concern, in 1899, and when it was the defendant in the suit brought by Owen for infringement of the Smith patents. As such attorney Mr. Redding pooh-pooed the suit and fought it determinedly. By the change that has taken place he is now seeking to establish the validity of the patents just as earnestly as he formerly opposed them.

At the present time the defence in the A. B. C.-Snyder case is still engaged in taking testimony. The foreign evidence being all in, that of witnesses in this country is now being proceeded with. Last week Colonel George Pope was examined, and after he was through Dyrenforth & Dyrenforth, the attorneys of the Cycle Trades Protective Association, called Mr. Redding to the stand as a witness.

The sittings are being held in a very informal way. No gowned judges, grave-faced officials or other customary attributes of the courtroom are there. Instead, the opposing counsel, the witnesses, an expert typewritist who takes the testimony on his typewriting machine, and the *Bicycling World* representative usually composed the *dramatis personae*. Question and answer succeeded each other rapidly, and were varied with remarks, explanatory and otherwise.

Some interesting testimony was elicited from Redding under the adroit questioning of the Messrs. Dyrenforth. These questions were carefully framed, and nearly all had a bearing on the witness's connection with the Pope Co. as defendant in the Owen suit. They were replied to with extreme deliberation and at considerable length, and were frequently punctuated with explanations and elucidations not intended to be incorporated in the answer.

For example, in explaining the postponement of the Owen-Pope suit from May, 1899—when it was to have come up for a final hearing—to October, 1899, at the request of Mr. Redding, the latter said after the completion of his formal reply:

"When I asked for this postponement I really had no idea that the negotiations be-

tween the American Bicycle Co., then in process of formation, and Owen would be brought to a successful conclusion. Owen was a hard man to deal with. He had an exalted idea of the value of the Smith patents, and it came as a surprise to me when we (the A. B. C.) succeeded in coming to terms with him."

At Saturday's session Mr. Redding was asked how many patents the A. B. C. owned, and replied that they had never been counted in detail. They were tabulated and arranged in a certain order, but the total number was not known, to him at least.

He was then asked which of these patents he considered the most valuable in the possession of the A. B. C.

Answer: "Smith patent No. 392,973, sued upon in this case, is the most important patent and the one of greatest value."

Continuing, he stated that he was taking the patents separately. If the chainless patents were taken as a whole he would, of course, except them, but as they were not regarded in this manner the answer given above was correct. On chainless bicycles the A. B. C. received a royalty of \$5 per machine.

Question: "Why do you consider the Smith patents the most valuable?"

Answer: "In my opinion, the first claim of these patents is a broad claim covering a bottom bracket built into the frame of a safety bicycle so as to form a union between the rear fork and the lower forward bar of the frame, and as this is used on all bicycles it is of great importance."

In reply to another question Mr. Redding stated that claims 1, 4 and 6 were the only claims of the patent bearing on the bottom bracket.

A question of apparently small importance was then asked. It was whether all the proofs had been filed with the court in the Owen-Pope suit.

Mr. Redding was not to be caught napping, however, for he entered into a very elaborate explanation of the failure to do this. Both sides, it appeared, had failed to file these proofs, as the suit had not been concluded, and this explanation led up to the story of the postponement of the suit, just at the time when a conclusion might have been reached.

At this time, May, 1899, Mr. Redding explained, he was overwhelmed with work. The formation of the American Bicycle Co. was in progress, and in addition to the legal matters connected with it he also had to carry through, in connection with Mr. Root, the reorganization of the Electric Vehicle Co. As a result he was threatened with a breakdown in health, and Judge Townsend, at his request, very obligingly granted him an adjournment to October.

In the mean time the A. B. C. was formed and the Owen patents acquired, and Mr. Redding passed from the role of defendant's to that of plaintiff's attorney. It was at this point that Mr. Redding stated that he had small faith in the success of the negotiations with Owen.

CROSBY ON CONDITIONS

Buffalo Parts Maker Talks of Things as They are and Must be.

Among the visitors in New York last week was W. H. Crosby, the head of The Crosby Co., Buffalo, and treasurer of the Cycle Trades Protective Association. He was an interested listener at the taking of testimony in the bottom-bracket suit. Like all members of the association, he is sanguine of a verdict favorable to the independent trade.

"What I can't understand," he said to a *Bicycling World* man, "is how or why any independent manufacturer can withhold support from the Protective Association. A royalty of \$1 per bicycle is an exorbitant tax, and it seems to me that every man interested ought to prefer to put the amount in bank and join in a common fight against paying it out until forced to do so."

Mr. Crosby stated that weather and cut-throat conditions had affected the parts trade, as it had affected all others.

"Our trade with the jobbers has, however, shown a splendid increase," remarked Mr. Crosby, "and we are particularly gratified, as most of it came to us without solicitation. It was a field to which we had given little attention.

"The future? There is still overproduction—there are still too many in the business. It means that some of them will have to get out. There is no sense in waiting and watching for another boom or for something else of the sort to turn up. The bicycle business has become a fixed business. I ride my bicycle ten miles per day, between my home and office. Every morning and evening in Buffalo there is a constant procession of people doing the same thing. Why, fifteen thousand people at least must use Genesee street alone in riding to and from work. This sort of thing will always continue. It is to these classes that the bicycle appeals and will always appeal. It is now chiefly an economical conveyance, and the bicycle business must be shaped accordingly."

Shelby's New Department.

Since the removal of its headquarters to New York the Shelby Steel Tube Co. has established what is termed "the Vehicle and Specialty Department," in which is included all bicycle and automobile work. In connection with the department, facilities for enamelling and nickelling have been installed, so that almost any demand may be met. E. K. Orr, whose connection with the cycle trade dates back many years, is in charge of the department.

Stratton Increases His Price.

The price of the Stratton motor bicycle, which made its appearance at the last New York Cycle Show at \$150, has been increased to \$200.

THE KEATING COMES

Long-Expected Motor Bicycle an Attractive, Clean-Cut and Featureful Creation.

Long expected, the Keating motor bicycle has come at last.

The accompanying illustrations show it in its several positions and give a very clear idea of its appearance from all points of view.

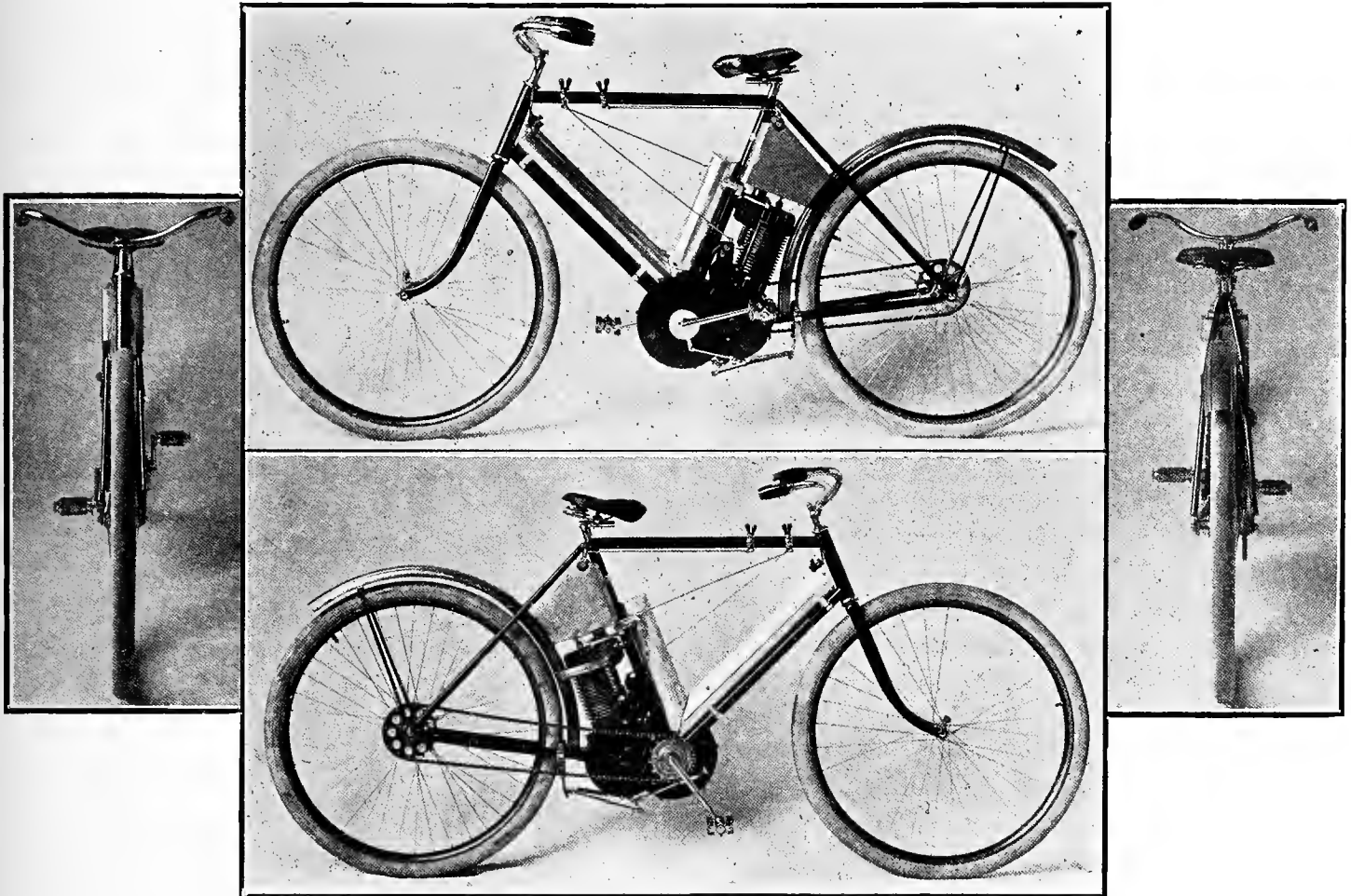
Although the bicycle has been a frequent sight on the roads around Middletown, Conn.,

manner, with the firm determination of upholding the Keating reputation of being '365 days ahead of them all.' Keating is rather hard on the motor bicycles that have preceded his invention. He refers to them as "so-called motor bicycles." His, he claims, is "the only motor bicycle, and not a bicycle with a motor attached."

As the illustration makes plain, the bicycle embodies not a few original features. The tubes forming the diamond frame are left practically intact, the motor being bolted to the back of the crank hanger and the front end of the lower rear fork, between which points it forms part of the frame. By this

but is free from the pedals. In the third position, which is obtained by moving the pedals slightly backward, the gear is then disconnected from the shaft, and the bicycle runs free from the motor. The fourth position is obtained by moving the pedals further backward, when by means of a lever connection a spoon brake is applied to the tire of the rear wheel.

An oil and dust proof casing incloses all the moving parts, shafts, gearing, clutches, etc. The cam shaft is located in the upper part of this casing, and is so placed as to bring the sparking cam and exhaust valve near the centre line of the engine, where



during recent months, and has been seen and ridden by a number of callers at the Keating factory, and although several of the bicycles had in fact been sold and were in use, Mr. Keating tried hard to keep the machine and information concerning it well screened from public notice. Against his will, however, two or three papers lifted the screen—for it is only this week that he himself has formally declared the bicycle ready for the press and the public. In doing so he states that he is a firm believer in the David Crockett motto, "Be sure you're right, then go ahead," and before announcing his creation ready for the market he has made sure that he is right.

Having done this, he writes that he "will push it with his usual tactful and forcible

arrangement the wheel base is lengthened and the motor placed low, in order to give ease in riding and balancing. A spur pinion on the motor shaft drives a large spur gear on the main shaft, which by means of the sprockets and single chain drives the rear wheel.

On the crank shaft is a combined clutch and coaster-brake of Keating design, which is controlled by means of the pedals, and has four different positions. In the first position, which is obtainable by pedalling forward and used in starting up the motor, the sprocket, gear shaft and pedals are all locked together solidly. In the second position, which is obtained by holding the pedals stationary and in the ordinary riding position, the shaft is locked to the gear and sprocket,

they are less liable to be damaged by any accident to the bicycle. This arrangement also permits of a tread of $5\frac{1}{2}$ inches.

The carburettor is of the surface type, without float, and is placed between the tubes of the frame immediately above the motor. The mixture is led in a pipe from the air and gasoline valves at the top of the carburettor down on the inside to the bottom, through which it passes directly into the top of the cylinder head. The rear mud guard is hollow, and is ingeniously made to serve as the muffler, the exhaust gases passing from the side of the cylinder head into the front end of the mud guard, close to the motor, and finally out at the rear end. Riveted inside the guard are numerous sheet-steel partitions, having small holes of grad-

uated sizes, which retard the gases and reduce considerably the noise of the exhaust.

The jump-spark method of ignition is employed, of course, the current being supplied by four dry cells (also of Keating origination), carried in an aluminum case clamped to the lower tube of the frame, and by a coil carried in a similar case on the seatpost tube.

In operation the air and mixture valves located at the top of the carburetter are controlled by the two small levers on the horizontal tube nearest the seat; the two other levers control the time of ignition and the compression relief cock in the cylinder head. The electric switch for starting or stopping is operated, as usual, by rotating the left-hand grip; a screw plug is also placed at the upper end of the battery casing which is removed and used as a safety switch. The splash method of lubrication is employed for oiling all parts of the motor and gearing, an opening being provided for partly filling the engine casing with oil.

The carburetter has a capacity of two quarts, which amount of gasoline is sufficient for thirty-five to forty miles; if required, an auxiliary tank with a capacity of two gallons can be placed above the mud guard. In case of any accident which might render the motor inoperative, or whenever the rider may elect to pedal, the clutch on the main shaft gear can be thrown out of operation by loosening a thumbscrew on a lever at the bottom of the crank hanger,

thus allowing the bicycle to be propelled without employing the motor.

The motor has a cylinder 2 7/16x2 3/4 inches, and runs up to 2,400 revolutions, corresponding to a speed of twenty-seven miles per hour. The bicycle has 28-inch wheels and 1 3/4-inch tires, and weighs complete seventy-nine pounds.

The experimental machine, Mr. Keating states, has been ridden some six thousand miles over all sorts of roads in all kinds of weather, and given perfect satisfaction; it has also climbed an 18 per cent grade without perceptible decrease of power. The list price of the roadster is \$225; with large motor, for racing or pacing purposes, \$300. Incidentally, the bicycle will be marketed by the new R. M. Keating Motor Co., and not by the Keating Wheel and Automobile Co.

To Make Dunlops in Australia.

What is in the nature of an event in Australia is the establishment by the Dunlop Tire Co. of a rubber mill in Melbourne. The building has already been leased and the necessary plant purchased. This machinery was purchased in this country. The superintendent of the factory will also be an American—an Indiana man, name not mentioned, who is reported already en route to Melbourne. In addition to Dunlop tires, the plant will turn out rubber specialties of all sorts. The savings in duties are naturally expected to enable the company to play an important part in the matter of price.

Creditors will Get One-Quarter.

It is now thought that the creditors of Arthur Griggs, the New Haven, Conn., dealer, who recently failed, will get about 25 per cent of their claims. The first meeting of the creditors was held at the office of Referee Newton last week, and attorney Samuel E. Hoyt was appointed trustee, with a bond of \$5,000. The assets are about \$7,000, according to the schedules, and the liabilities about \$9,000. Included in the former are two pieces of real estate, a house on Edgewood avenue, and a cottage at Oriental Park in Savin Rock. The cottage is mortgaged for \$1,400 and the Edgewood avenue property for \$2,500, this being the full value of both properties.

Russia Raises Rates.

Although it went into effect on March 1, the Treasury Department has just promulgated the news of an increase of 30 per cent in the tariff on bicycles, among other articles, imported into Russia. The original duty was 2.55 rubles, or about \$1.25. This has now been raised by 30 per cent, which makes the present duty about \$1.62. The increase is the more regrettable in view of the marked increase in shipments of bicycles from this country to Russia during the past few months.

An interim dividend at the rate of 20 per cent per annum has been declared by the (English) Palmer Tire Co.



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The Morrow Coaster Brake

enables any wheelman to coast the steepest hill with safety.

On the level it gives him a coast nearly one-fifth of the way and nurses his strength for the hills. Try it on your next Century run.

Can be adjusted to any wheel. Simply remove the old rear hub and put the MORROW in its place. All dealers. Over 200,000 in daily use.

Our booklet "Up Hill, Down Hill or On the Level" tells the story.

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THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 2349.

NEW YORK, JUNE 13, 1901.

Going Slowly Now.

That fashions in cycle construction change slowly, and usually only for good and sufficient reason, ought to be pretty well understood by this time.

Even the cry of weight reductions has not availed to shake this new-found habit of making haste slowly. Weights are, as a whole, too great, and they can be reduced with entire safety and without entailing any great expense. But this is not being done in a hurry. A beginning has been made, and the effects of it are observable in this season's machines. The movement will undoubtedly continue.

But makers have not been hurried in the matter. They have been able to make their dispositions in a deliberate and economical manner, undisturbed by any clamor. This consideration is altogether unusual. It would not have been shown a few years ago.

The tendency to avoid extremes, to jump from one thing to another diametrically opposed to it, is shown in the matter of tubing sizes also.

Instead of rushing in and demanding machines made up of the small sizes of tubing, and refusing to take anything else, riders have been inclined to regard this as but one of the points to receive consideration. Sometimes they have decided along these lines; at others they have given other features the preference.

The result has been that there has been no rage for small tubing and no slump in machines that did not have it. It has been regarded as being a little more up to date than other machines and favored on this account.

Before the season is out it will have become plain whether smaller tubes and reduced weights will have the call in 1902.

Consequently, makers will know in ample time what sort of machines it will be best to make up.

Effect of "Features" on Foreign Trade.

More than once we have stated that the wonder is not that our export trade receded, but that it rose to such a height.

The report from Marseilles, France, which is published in another column, shows how well the assertions were justified. None who manufacture bicycles or single-tube tires can read it without profit to themselves. It shows the folly of "letting tomorrow take care of itself"—the folly of selling bicycles or tires and leaving the rest to fate.

It demonstrates as well that many of our labor-saving refinements and improvements are not only not appreciated, but are damned by the foreign dealers; they are unappreciated and damned solely because they are not understood, and because no intelligent effort is made to have them understood. It is a too common failing to assume that because one has a full understanding that every one else has or can obtain it by intuition.

The instances which our correspondent cites—the fact that our handle bar and pedal fastenings are not understood, and that in consequence the crude, clumsy and ungraceful foreign bars and pedals are preferred—this is evidence that the very features which should assure our lead and hold it fail of their purpose.

The fact that our correspondent filled the French people with amazement by so cementing a tire that it remained fast to the rim—the fact that he could not obtain the proper cement in France—this is an instance of ignorance that would be amusing were

it not for the culpable negligence on the part of our exporters it conveys.

Much of such trouble is due to the manner in which our goods are marketed abroad. Dealing through export commission houses, the foreign dealers are not in touch with the manufacturers themselves. The commission traveller, probably carrying many different wares, establishes a connection, makes a sale and leaves fate to take care of the future. He may never see his patron again. It may be that direct trading is too costly, and that working through the commission houses is the easiest way out; but surely for his own best interests the manufacturer should assure himself that his goods and its mechanism and its features are intelligently explained and understood.

It is not proper that anything should be taken for granted. Because American riders and American dealers understand, without description or illustration, the internal expander, the screw-in pedal, the cotterless crank, the two-piece axle, the coaster-brake, the cushion frame, or whatever it may be, is no reason why it should be assumed that the rider and dealer in France, in Russia, in Egypt or in Japan understand it as well. Elementary catalogs and illustrations are necessary to make assurance sure.

At this stage of the game the statement may seem unwarranted, but, coming from France—a country favoring and favorable to American bicycles—our correspondent makes plain that such instruction is highly important where the object is not merely to make one sale, but to sell the same man twice or many times—an object that should be ever uppermost.

Without desire to be vainglorious or to promise too much, we are confident that the Bicycling World's export editions will prove of lasting benefit in the influence it will exert in foreign fields and in the better understanding and appreciation of the American situation and of American features and refinements that it will create. The editions will deal with just such matters as have hurt or stunted our trade in Marseilles. Nothing will be taken for granted. If anything, we shall err on the side of giving too much information rather than too little.

Erecting Legal Scare-Crows.

Already there is some buying and placing of orders for 1902: two or three large jobbers have contracted for their next year's bicycles.

It is freely alleged that the sudden re-

eruption of the Trust's bottom-bracket "volcano" is due to this cause. In one instance a large order was pending, and, assuming that either his patron or the "independent" concerned would be frightened or weakened by a lawsuit, proceedings were rushed and the suit filed with a speed to which the "mills of the gods" are quite unaccustomed.

It is expected that this policy of erecting legal scarecrows will be continued. The attitude of the Trust's legal department points that way, and a general waving of patents need cause no surprise. It is scarcely probable, however, that the independent trade will be intimidated. If anything, it should serve to draw the independents still closer together and the more firmly knit their interests.

Surface and other indications make it fairly plain that the Park Row corporation and its chief annexes operating under other titles are bent on playing what appears mightily like a rule or ruin game. It may be that the apparent effort to get business at any price is designed to "drive the other fellows out of business," or it may be a frantic effort to avoid or postpone what many have long considered the inevitable. The game is certainly growing interesting again. The possible results will not bear prophecy, but cannot be delayed very many months.

Then and Now.

Only eight years have passed since the Chicago World's Fair was held, and now it is the Pan-American Exposition at Buffalo that holds public attention.

In that comparatively short space well-nigh a century has been crowded in, measured by the old standards of time. But nowhere, perhaps, is this change more apparent than in the case of the cycle trade.

At the Chicago exposition the cycle still had the period of its great prosperity ahead of it. It had made wonderful strides in this direction, the safety and the pneumatic tire being largely responsible for them. Furthermore, it was still growing, although the hard times which began that year hurt sales a great deal.

But the "boom" and the "slump" were both to come and to exercise their great influence on trade and public. Outside of a few hopeful souls, no one was bold enough or farsighted enough to prophesy the glorious future.

But the well-known events did occur, and are ancient history now. We are again in much the same position as in '93, in some

respects. Prices are 'way down and the number of machines in existence is much greater, but sales and active riders are not so markedly different as to destroy the analogy.

In the cycle exhibits at the two expositions great changes are also to be noted.

At the earlier one foreign machines—principally British—occupied an important place. At Buffalo they are absent.

A shrinkage has also taken place in American machines shown. But three concerns are represented at the Pan-American, the remainder of the trade, from indifference or other reasons, holding aloof.

Somewhat of this may be due to the knowledge that the present exhibition is Pan-American only, while that at Chicago was a World's Fair, and little to the changed conditions prevailing in the trade.

The Question of Weight.

One side of the weight question—that of machines—has always received a very great deal of attention. But the other side—that of riders—has met with almost equal and thoroughly unmerited neglect.

It was human nature, of course, to dwell only on the cycle, for that was the product of the designer's and maker's labor, and the critic could indulge in his favorite amusement to his heart's content. He could not change his own weight, he would argue, but the maker could alter that of the cycle. Weights had been cut down in the past; consequently they could be cut down again.

It must be admitted that the cycle maker has no easy task. In no other branch of manufacture is the weight to be carried so completely ignored. In carriages, which bear about the closest possible affinity to cycles, this factor is almost paramount. Even after the weight that is to be carried is determined, the character of the roads over which the vehicle is to travel is taken into consideration, and then, to cap all, a generous margin of safety is provided. It is small wonder, in view of all this, that carriage builders are but little worried by the weight question.

It may be said that cycle makers should make heavy machines for heavy riders and light machines for light ones. But it has been demonstrated beyond dispute that this solution is an impossible one. Buyers won't buy different weights. The heavy riders will insist on taking the light roadsters, and, no matter how attractively the heavier machines are catalogued, they remain unsold.

Some unsophisticated souls, who, however, must be unacquainted with the bicycle trade,

will be inclined to ask why, then, if all buyers insist on selecting one weight machine, this weight is not put high enough to carry the heavyweights safely? In other words, if light and full roadsters will not go, why not drop the light roadster?

The answer to this is easy to make. The heavyweight is even more anxious to select a light roadster than the lightweight. As he views it, the light machine is a mark of distinction, and he regards himself as peculiarly fitted to acquire an ownership in it.

The result is that the maker has to provide one machine, and that as light as is consistent with its ability to stand up. This means that it is, in a measure, a compromise, the light and expert rider being obliged to carry a little more weight than is necessary, while his heavier companion is favored in this respect. The maker gets the worst of it. For he is blamed by both classes of riders, one complaining of trouble, the other asserting that he is obliged to carry around unnecessary weight.

Perhaps the matter will be righted some day. But when it is the millennium will be perilously near.

May its Turn Come Soon.

If the trade could only count with some certainty on the mail-order houses following the example of their predecessors and passing away, it would feel a great deal better than it does at present.

There has nearly always been some strong and frequently unscrupulous competitor to take the cream of the business.

First it was the hardware dealer. He broke into the game and for a while played havoc. It was only when he met considerably more than his match, in the shape of the department store, that he yielded the field.

His successor "ruled the roost" for a number of years. But the day of the department store has passed also, and to-day it either wages battle on equal terms with the cycle dealer or withdraws from the field altogether.

The average dealer is now able to buy as cheaply as his once great rival, as well as to market almost if not quite as advantageously.

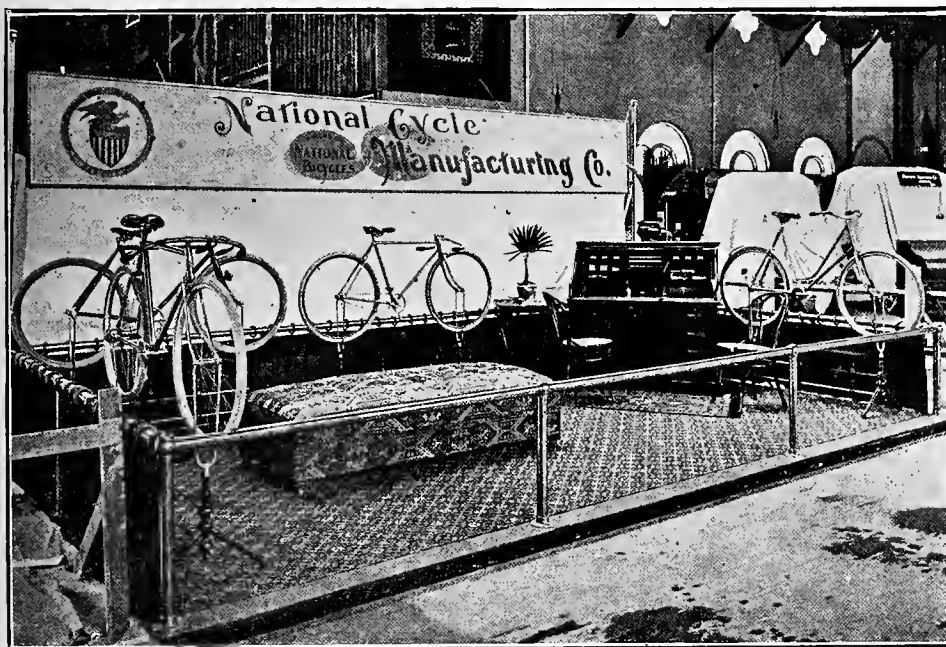
But by the perverseness of fate he is not permitted to reap the full advantage of this condition of affairs.

Handle-bar fashions have undergone considerable change. Outre effects are no longer the rage. Moderation is the keynote, save in one respect. The forward stem has suffered no check to its popularity.

ONE OF THE THREE

Where and How Nationals are Being Shown at the Pan-American.

Of the three bicycle manufacturers who are exhibiting at the Pan-American, none is better known than the National Cycle Mfg. Co., of Bay City, Mich., whose booth is located at the northwest corner of Section 8 in the Transportation Building, and which covers an area of 200 feet, fronting on two aisles.



As the accompanying illustration shows, the National people have not gone in for expensive decoration, confining themselves to attractive signs and hangings in their National blue, and to the furniture necessary to equip the booth in a comfortable manner. They hope to make their booth the resting place of their many friends who will visit the exposition, and have provided facilities which will make their patrons and friends feel at home.

National bicycles are displayed in the usual manner, competent men being on hand to explain them, the special features which have made the National prominent in past years being shown most thoroughly and intelligently. The special wheel of this year, viz., the cushion frame, coaster-brake chainless model, styled the Pan-American National, in honor of the exposition, is shown up carefully, sections of the frame and chainless construction being mounted in such a way as to make plain to the most inexperienced just how that machine is made. This will be particularly interesting to the practical man, as the National people make their chainless bicycles entirely in their own factory, from their own designs, and it is fair to say that, inasmuch as they are exploiting

it with their usual intelligence and vigor, the National chainless is a success and a satisfactory mount for all who purchase it.

While all were not in place when the photograph was taken, the entire line shown comprises thirteen models, varying in price from \$40 to \$75, every wheel made by the company bearing its trademark.

The National booth is at present in charge of S. B. Jones, the Ohio representative of the company, while J. H. Johnson, at 35 Niagara street, Buffalo, looks after the local demand, and incidentally helps visiting friends of the National as much as possible during their visit to the Pan-American city.

Proprietors and Office Boys Will Race.

The manufacturers, jobbers and dealers of Montreal have all joined hands; the Cycle Trade Association of Montreal is the result.

Whatever may grow out of the organization, its immediate purpose is the conduct of a race meeting in July which shall be open to the trade only, from proprietors to office. The programme as outlined includes events for each class, as follows: One-third mile, office boys; one mile, proprietors and managers; two miles, travellers, D. C. T. and C. T. A.; one-mile puncture race; five-mile race, open to the trade; two miles, salesmen; one mile, repairmen; two miles, apprentices to repairmen; one-third mile, open to the trade, and two miles, tandem.

Ten silver medals of handsome design will be given as first prize in each event, with second and third prizes of good value.

The officers of the association are as follows: President, L. D. Robertson, Canada Cycle and Motor Co., Ltd.; vice-president, Art. Harries, National Cycle and Automobile Co., Ltd.; secretary-treasurer, J. C. Trenaman, 45 McGill College avenue; committee, T. W. Boyd, T. W. Boyd & Son; J. Ernest Millen, John Millen & Sons; A. J. Prockter, Mount City Cycle Co.

MARSH ON MOTOCYCLES

Has had Lots of Experience and is Full of Faith—Condemns the Chain.

Whoever is interested in motor bicycles or the building of them will find the catalog of the Motor Cycle Mfg. Co., Brockton, Mass., well worth perusal. It is not only an attractive publication, but one that conveys no little information. The active men in the company, the Messrs. Marsh, impress one as being particularly clear headed and capable, full of the right sort of energy and properly balanced enthusiasm and confidence. They have an excellent grasp of the situation, and now that their bicycles are coming through they are seeking agents and making it an object for agents to seek them.

"We know how to manufacture," said one of the Marshes, "and are in the business to stay until motorcycles are succeeded by flying machines. We were among the first in the country to build a motor bicycle, and it cost us a great deal of time and money to learn that a chain driven motor bicycle is only fit to run a few miles and then pose for its photograph. We say further that if any concern is so foolish as to put out machines in which a chain is used to convey the power from the motor to the rear wheel they will prove to be a blessing to the repair men and a curse to the rider.

"We are beyond the experimental stage, and our machines are well made and thoroughly practical in every way. All our small parts are being made by concerns which have the best reputation for good work in their respective lines; our cycles are made by a concern which is among the leaders in the manufacture of high grade tandems. In short, we will be able to supply a large number of our motor bicycles between now and the end of the season, and are treating agents so that they will remain with us in the years to come."

Sue to Recover on Bond.

In the Court of Common Pleas, at Hartford, Conn., the case of the Indiana Bicycle Co., of Indianapolis, Ind., against C. L. Tuttle, of Hartford, is up for decision. It is claimed by the plaintiff that Tuttle was surety on a bond to secure it against loss for goods sold to George N. Olmstead on credit, and the action is brought on the bond to recover \$232.48 for bicycle and bicycle parts sold to Olmstead. The defense was that the bond was cancelled before the obligation was contracted by Mr. Olmstead, and the further claim was made that the credit which the plaintiff gave Mr. Olmstead was for a greater sum than the surety.

Costa Rica has made a sweeping increase of 50 per cent in duty on all importations. It is stated that the increase is designed to "induce economy on the part of the people."

GOOD SALESMEN AND BAD

Qualities That Enter Into the Make-up of Each—An Example.

Opinions differ as to the qualities required of the successful retail salesman at the present time. One contention is that more ability is required now than at any previous period, while another is directly opposed to this, holding that the salesman is now little more than a lay figure.

Somewhere between the two extremes the truth lies. The greater knowledge of the average buyer—for it really exists, instead of being a pleasant fiction—cuts both ways. It enables him to know pretty well what he wants before he enters a store, and if he needs but little assistance from the salesman—thus bearing out one contention—he is also quick to detect and resent stupidity or duplicity on the part of this individual—thus supporting the other. Such a buyer deems himself entirely qualified to select a machine without help, but should there be any information he wants he expects the salesman to impart it promptly and truthfully.

As a matter of fact, the quality most of all to be desired in a salesman is fact. Gifted with this, he can usually steer clear of pitfalls and take advantage of the crucial moment to close the sale. Without it he is apt to blunder and to lose the golden opportunity.

A good salesman, especially in a large store, is almost certain to command a fair salary. A few dollars more or less each week may seem a small matter, but when against it is to be put the making or losing of sales there is not much room for doubt as to the wise course. If the dealer is able to handle the selling end of the business, in addition to attending to his other duties, so much the better, provided, of course, that he understands how to sell goods. This is usually the case with successful dealers.

In one large store a short time ago there were employed two salesmen of the class alluded to. They understood their business thoroughly. The manager of the store was able to turn the floor over to them and look after other things, confident that when a customer entered he would be sold a wheel if it was humanly possible to induce him to invest.

The two men were tactful in an unusual degree. They were also versatile, pleasing in appearance, good talkers, and, above all, thoroughly in earnest when their opportunity came, i. e., when a prospective customer entered. They realized that their positions depended on their continued success; and they took a pride in being able to say that they never missed a trick. Each customer was sized up and treated in the manner that was almost certain to prove most efficacious. Raw countryman or alert business man, ambitious scorcher or dainty but timid inquirer for a drop-frame machine—each was approached in exactly the right manner.

They were markedly successful—so much so, in fact, that the manager in the course of time came to the conclusion that their success was due to extraneous circumstances—the excellence of the goods, the reputation of the store, its system of advertising, its wise management, etc. Acting on this belief, he gave his two crack salesmen their walking papers, after offering them the privilege of staying on shortened rations, and engaged two others at a considerable saving.

If he had not been a stubborn man he would have admitted his mistake at the end of the first week, or at least very shortly thereafter. But he fought down this feeling, in spite of the plain evidence before his eyes. The new men were willing enough, and even conscientious. They tried to equal the work of their predecessors, but without avail. They were not presentable physically and they lacked the ability to “jolly” along a customer who wanted “jollying,” or to refrain from the slightest touch of familiarity where it would be resented.

Consequently they lost sales. They accounted for the easy ones, all right, but it did not take them very long to get over their heads. This point once reached, they were helpless.

Only one result was possible, and it was eventually reached. The manager stood it out for the whole season, doggedly refusing to admit his mistake, and just when he had made up his mind to make a change the next season he received orders to close the branch. Sales had dwindled to such an extent that this course was deemed wise. It was not due entirely to the change in salesmen, of course. But that undoubtedly had an influence.

Rider was Satisfied.

They were all old riders, and while waiting for their train spied a wheelman plodding laboriously along, mounted on an ancient “crock” that looked as if it had just emerged from some museum of antiquities.

“Look at that!” cried one, pointing to the rider. “It’s a Victor, too, as I live! Spring fork, solid tires and all. Well, well, if it doesn’t take me back a dozen years and make me think of the day I rode one of those identical machines. The strangest part of it all is that I thought it was the finest thing in cycles that ever had been or could be put through a factory.”

They watched it until it disappeared from sight, commenting on its peculiarities. It shook perceptibly as it was driven over the Belgian blocks, the front wheel jumping up and down under the spring of the forks. The tires were about three-quarter inch, and the weight of the machine must have been sixty pounds or more. But the rider, evidently a workingman, did not seem to mind it a particle, and plugged along as if he were used to the attention he was receiving.

Judgment for \$800 has been taken by Patrick Sullivan against Durant McLean, of New York, who failed some months ago.

RIDER AND DEALER

How Their Relations Have Changed—Tire Sales as an Illustration.

Nothing better illustrates the great change that has come over cycling than the attitude now assumed by the majority of riders when they come to have business relations with the trade.

Instead of the lavishness which formerly marked their expenditures and tinged their whole dealings with the retailer, conservatism now rules. The purchase of a new machine, the laying out of money for repairs or improvements, even the investing in sundries, these are matters decided upon only after careful consideration. Frequently the rider concludes to do without something that in the old days he would have decided on in the great possible haste.

This is true of all classes of riders—those who use the wheel constantly as well as those who do so rarely. The latter, indeed, carry the matter to an excess. They will not make even necessary repairs, and frequently their machines fall into a condition where they cannot be ridden at all. This frequently leads to their giving up cycling. An expenditure—sometimes a considerable one—is necessary before riding can be resumed, and it is rarely made.

The tires are the first part of a cycle, whether it is much or little used, to give out. One case which came under the writer’s notice illustrates this forcibly. Three machines—one diamond and two drop frames—were in one “stable,” the former being the only one much used. A tire on the man’s wheel gave out, and one was borrowed from one of the drop frames. This operation was repeated several times, the borrowed tires being in a condition none too good, until they were all gone.

This year the question of riding again came up. There was the great obstacle to face right at the beginning, however. Two sets of tires must be bought—an unpleasant but necessary preliminary. The season before the desire to ride had not been very pronounced, and nothing had been done. But this time it was much stronger. Other friends were taking to the wheel again, and there was a strong desire to follow their example. The result was that new tires were bought, and the machines are now being used.

It is the same way with new machines. Riders who intend to change keep putting off a final decision. They wait and wait, and it is only when the example of a friend or a sudden desire stronger than usual impels them that they take the step.

That this should be so is not altogether strange. They but follow the current. It is the fashion now to point to the old machine and recount the years of service it has seen. A few years ago it was just the other way. Ardent wheelmen were ashamed to be seen with a machine that was more than a season old. They must be in the swim, and fashion dictated frequent changes of machines.

PLAYED THE PHILOSOPHER

But Charged Double Rates for the Job, with no Guarantee.

He picked up the tire with a resigned air and looked at it contemplatively. Turning to the Bicycling World man, he said:

"If you want to see something curious watch me for a while. This is the sort of thing that used to rile me, but I have so much of it now that it only amuses. Here is a tire that has been filled with some brand of tire fluid—not once, but many times. It weighs about double that of an ordinary tire, and its owner has spent on it enough to buy a decent tire. But he is now going to add a little more to his investment.

"This time he picked up a nail. So he brought it to me to have the puncture fixed, instead of injecting another supply of tire fluid. Maybe he thinks it has had enough of the latter—and I guess he is about right. Listen."

The repairer held the tire up in both hands and gave it about a quarter revolution. There was a curious rattling sound, as if something inside the tire was rolling around in it.

"That's tire fluid," he said. "It's in there in full and plenty; in fact, there's not very much room for air or anything else there. It's dried up, most of it, and the good it was once capable of doing has passed away. It's simply in there, taking up space that could be occupied by air and interfering with the repair.

"As the puncture is in plain sight, it is a comparatively simple job. But even as it is there is a lot to do. Before I can get a plug to stick I must take out the 'fluid' from around the inside of the hole, and clean it thoroughly so that the new cement will take hold. There's only one way to do that, and here it is."

With that he set to work with a bit of steel pointed at the end. Inserting this in the hole, he began to work away on the inside of it. Presently he brought out some dry, slightly sticky stuff, and threw it away. He repeated this operation over and over again. Each time it seemed as if he must be at the end of his labor, but with unfailing regularity the bit of steel brought forth more "fluid."

For fifteen or twenty minutes this was kept up. At the end of that time he remarked that he thought he had got out all there was around the inside of the hole. The bunch of "fluid" on the bench beside him seemed to bear out this belief, although another turn of the tire showed that the main reservoir of "fluid" had not been drawn upon.

"Now to clean it," said the repairer, as he picked up the small can of gasoline.

This he thrust in the hole and squirted the volatile fluid in, while he worked it around in a circle. Again and again this operation was repeated, until even the doubt-

ing worker was convinced that he had secured a good foundation for the important part of the job.

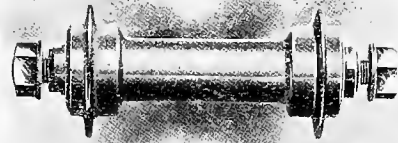
Thereupon he put the tire down and began rummaging among his supply of plugs in order to find one suitable for plugging the hole. Finding one to his liking, he went to work with it and soon had the tire repaired. As he was turning away the Bicycling World man asked if that job was done at the regular rates.

"Not on your life!" was the quick reply. "It's double rates, and no guarantee. I've worked on that tire before, and I know what it is."

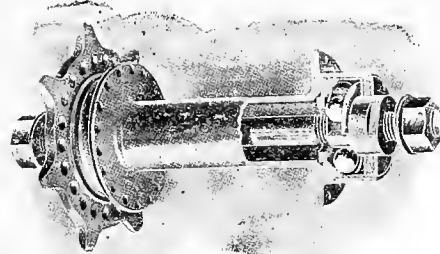
Weston's Featherweight Hubs.

To meet the demand for a light-weight hub the I. A. Weston Co., of Syracuse, N. Y., have added another Champion to their line—that shown by the accompanying illustrations. They weigh but 14½ ounces per pair.

The relative angles of the surfaces containing the points of contact of the sur-



faces with the balls forming the bearings have been determined by geometrical construction, the result being that the balls,



without twisting, turn about an imaginary axis. In other words, the zones of contact upon the balls are all parallel and the friction between the balls, cups and cones is a rolling friction, as is the case of a wagon wheel rolling upon a smooth pavement. Since the adjustment of the bearings is accomplished by moving the cone along its own axis, a change in the adjustment because of wear does not change the relation above described.

The cone, being a stationary member, is subjected to twice the amount of wear that a cup receives. In their latest models, therefore, the cone has been given two points of contact, the cup one.

Steel ball retainers, holding the balls in a cluster are used. Such retainers are most convenient, especially when it is desired to clean the balls. The balls and retainers are thrown into a cup containing some cleaning fluid, like benzine, agitated and returned to their place in the hub shell.

The dust cap feature employed in the Champion hub is one that has proven itself effective. The oil holes are placed in the cap, with the idea that the oil when applied will be filtered through the felt washer lying between the cap and the balls.

PRACTICING PHILANTHROPY

Although Disclaimed, This Appears to be English Maker's Result.

Philanthropy is extremely praiseworthy, and those who practise it generally receive—and deserve—the benedictions of their kind.

But it is seldom that business firms pose as philanthropists. They are in business to make money, and cannot safely depart from this traditional policy. Actions which appear to be actuated by such motives are invariably found to have back of them a belief that the outlay, whatever it may be, will be fully compensated for by an increase of business. In short, every business must be conducted with an eye to the main chance.

On the face of it, an English firm is about to depart from this policy. It proposes to cease stamping its parts and fittings with its name, with the avowed object of making its goods indistinguishable from those turned out of the "cheap and nasty" factories and bearing no name whatever. This is putting it strongly, but no more so than the concern's announcement seems to warrant.

In the English trade fittings bearing the maker's name cut a much greater figure than in this country. They are used almost universally by the smaller makers, and the public is thoroughly informed regarding them. It is therefore to the interest of such concerns to shelter themselves behind these well-known names and advertise machines with B. S. A. or Components fittings at abnormally low prices. Naturally, poor workmanship and good fittings have been associated, to the detriment of the latter. This accounts in a great measure for the present move which has been made by the Cycle Components Co.

What this concern has to gain it is not easy to see. It disclaims all intention of posing as a philanthropist, asserting that it expects to get more business from the good concerns when the weak ones are weeded out by such moves as this one. But it looks as if a certain loss of trade were being faced in order to obtain a possible, and distant, increase.

The step is explained at great length in the current English journals, and the effort is made to show how it will benefit the Components Co.

"It may—it will be—pertinently asked by many where we come in, where is our goodwill," the concern says.

"It lies in this, that every part we supply will be marked or labelled with our name, 'Components,' but in such a way that after the building up all trace shall have disappeared, while we will continue to guarantee every piece, as in the past.

"We, unless the soundness of our policy induces our esteemed competitors to follow our lead, will be the only firm entirely avoiding all indelible trademark stamping, from whom really highest grade unbranded fittings can be purchased, and once a local maker has built up his reputation and his goodwill on our work he can no more afford to leave us and take risks elsewhere than we can afford to lower in the slightest degree the quality of our productions."

FROM WATCHES TO MOTORS

**Swiss Factories Take Hand at New Game
—More Motor Bicycles Seen.**

London, May 29.—The demand for motor bicycles is setting in fast. The Motor Mfg. Co., Ltd., report being overrun with orders for the Werner, for which they are the sole agents here. So great is the demand that trade orders have to some extent been allowed to go, for all the bicycles can be disposed of at once to the public, who in several cases have paid as much as \$25 premium in order to be allowed to take a machine away from stock. This looks well for the trade, and certainly the demand for motor tricycles is not so great in proportion. On Whit Monday I saw a considerable number of motor bicycles being ridden in the London district, so that there is no doubt that the trade is improving in this line. The Werner apparently holds its own in popular favor.

The Singer motor bicycle is also very popular, and the company cannot deliver it fast enough to fill the orders. This machine is the only one of the class which seems to appeal to ladies, and a few of the fair sex are taking to it, and more will do so at an early date. The placing of the entire motor in the rear wheel renders it peculiarly suitable for dropped-frame machines; hence its popularity.

Yesterday I called on Charles Manning & Son, the well-known importers, and was shown their latest introduction in the motorcycle line. This is really a complete motor, including 1½-horsepower engine, carburetter (float-feed pattern) and accumulators, together with a petrol tank holding enough to run the machine some forty miles. The whole is very compact, and is inclosed in a tubular frame which just fits inside the frame of a standard pattern safety. The motor frame is secured in place by six or eight strong clips, so that it really strengthens the actual frame of the cycle. The pulley for driving is made to attach to the rim of the back wheel, five or six brackets being employed for the purpose. It seems that all the alteration necessary to render an ordinary roadster safety sufficiently strong for use with this motor is to replace the ordinary front fork by one of a stronger pattern, which can be done at a small cost. The complete engine and pulleys are sold to the trade at \$120, so that it would only cost about \$125 to convert a machine of ordinary pattern into a motorcycle. Any one can fit the motor and pulleys in place in about half an hour.

This motor is manufactured in Geneva, where, I hear, a great many of the smaller engines and numerous parts are likely to be made in the near future. The watch industry is not so good as formerly, and so the

factories are being utilized in the production of motor parts of the lighter type, which the present machinery is capable of producing quickly and at a comparatively small cost. If this latest novelty is a fair sample of the workmanship and material, all I can say is that the Swiss will take some beating at the game, although possibly they will not prove so successful should they attempt to deal with larger machine. Anyway, there can be no doubt that a fair trade will be done in these complete motors, especially as they do not necessitate any very serious alteration of the frame of the machine. I should also remark that the motor is particularly well designed, from the rider's point of view, since one lever controls the sparking and the throttle, so that the machine is as simple to drive as the Singer. I always think that the Singer owes a good deal of its undoubted popularity to the fact that one lever completely controls it, and to the entire absence of a number of handles, which are apt to confuse and frighten the beginner. This Swiss motor has the same advantage, and is very much cheaper to produce—a great consideration where the agent is concerned, as putting down a good deal of cash for a motorcycle on the chance of a sale is sometimes looked upon as rather risky by the more conservative dealers.

With the increase in the number of motorcycles running, there appears to be a decrease in the efficiency of some of the dry batteries supplied for these machines. Two friends of mine have recently been the victims of inferior batteries, notwithstanding that the cells bore well-known names and were of the most costly pattern. One set ran out completely in less than five hundred miles' running, and the other was only about a hundred miles better. The cost of each set was \$6, so that the price is a matter for consideration. Electricity is apparently going to cost us as much as petrol unless we can get batteries which will last long and prove more reliable. Personally I have never come across any batteries which ran the machine so far as the makers and agents said they would do, nor have I heard of any machine covering the distances stated unless allowed to stand idle for a few days occasionally, under which circumstances the batteries will frequently recuperate to a certain extent. The English-made batteries, however, are very inferior to the French productions, and the ampere readings are nearly always lower to start with and fall very rapidly. Some of the French sets show as much as 14 or 15 amperes, but most of those of English manufacture do not register more than 10 amperes at the outside.

The float-feed carburetter question does not appear to have much effect upon the motorcycle trade, although some of the latest pattern motors—notably that sold by Messrs. Manning, to which I have just referred—are fitted with this type. I expect that there will be trouble in this particular so soon as the trade in the machines develops sufficiently to make the taking of proceedings

worth the cost involved. Anyway, I should say that the license will be considerably less than that charged for the carburetters of actual cars, as, if not, it will mean a very considerable increase in the price of cycles of this class, and, notwithstanding the increase in the popularity of these machines, the trade cannot afford to be further handicapped in the matter of cost.

Humber Loses \$200,000 Suit.

After being fought in the English courts for more than three years, the litigation between Humber & Co., Ltd., and the Griffiths Cycle Corporation has come to an end. The first-named concern is the victor, and is thereby saved the very unpleasant necessity of having to pay over a sum amounting to nearly \$200,000, the amount of damages claimed to have been sustained by Griffiths.

The case is a famous one, and is considerably involved. Briefly, the Griffiths Co., which at one time cut some figure in the American trade, had contracts with a number of the best English firms, under which they sold the latter's bicycles. These were disposed of through depots, retail stores and in other ways. During the "boom" times Humber & Co. decided to organize a company of its own—Humber, Extension—to handle its entire output. This was done, and in this manner the Griffiths Co.'s nose was put out of joint, as far as Humber bicycles were concerned. Hence the suit.

First blood was won by Humber, the trial court deciding that there was no breach of agreement. The Court of Appeal reversed this finding, gave judgment to Griffiths and ordered an accounting. The matter was then carried to the court of last resort, the House of Lords, which has rendered decision in favor of Humber. The determining cause was the absence of a binding agreement. The Griffiths concern was reorganized, and the agreement was to have been transferred to the new corporation, but this was never done.

When the Millennium Comes.

Just how soon in the present century the pleasing prophecies of that British scientist-novelist, H. G. Wells, are to come to pass is not stated. But it is interesting to know that in those glorious times there will be special highways constructed for the use of "soft-tired" vehicles, among which, of course, the bicycle is included. They will be of asphalt, "probably," but more likely of some superior substance not now known to road-makers. With such highways the weight problem will be much simplified, for with perfect surface breakages cannot occur, no matter how light the machines are made.

Regard it as a Novelty.

Liquid or dip brazing, so generally used in this country, appears to be almost unknown to the British cycle manufacturers. One of them calls the attention of a trade journal to the fact that it brazes by dipping, and the latter comments on the fact almost as if it were something entirely new.

AGE OF YOUNG MEN

The Increased and Increasing Part They are Playing in the World's Affairs.

Truly, this is an age of young men. Nowhere is this more clearly demonstrable than in this country. To this fact, perhaps as much as any other cause, is attributable the marvellous growth of American manufactures in the past decade.

Elsewhere the young man is, or was until very recently, discouraged and his youth held up to him as a perfectly logical reason for his being kept in the background. His pay is small, his advancement slow; consequently the incentive to give his employers the best there is in him is lacking. Age, not ability, is the test which is applied to him when the opportunity to push him forward is offered.

In the bicycle trade, no less than in other lines, the effects of these two systems have been apparent. In this country contribution has been laid on the best of two hemispheres. One has but to look around, and in every branch of the trade he will see the pick of both working side by side, vying with each other to produce the best.

In a recent article in the London Times an authority on international machinists' topics points out the strong and weak points of the two systems.

He points to this country as an example of a very different system from that which in England drives young men to seek more attractive and profitable fields of labor where they strengthen the competition which Great Britain finds it so difficult to meet.

This applies especially to young mechanics and engineering graduates. By a simple calculation the writer shows that it costs, on the average, to bring a young man to the point where he is ready to begin effective work about £850, or, say, \$4,250, which is a low estimate. This is divided as follows: From birth to the age of twelve, £25 per year; from twelve to seventeen, £50 per year; from seventeen to twenty, £100 per year. This ends his schooling and gives him a technical education.

For the next five years he has to work for practically nothing, usually without compensation, though rendering his employer useful and often valuable service. This experience discourages him and disgusts him with the conditions which present themselves at home. By the time he has reached his maximum value, as a mechanic or an engineer, he has made up his mind to emigrate.

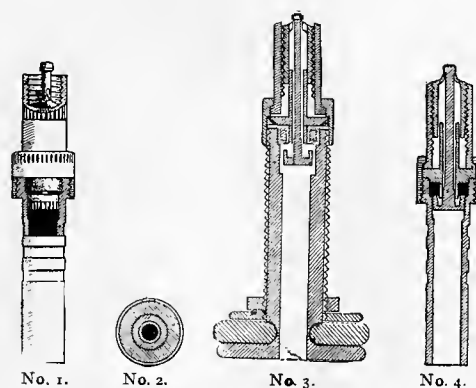
The net result is summed up as follows: "We may have paid America for corn to feed him and cotton to clothe him; his sugar came from Germany, his tea from India, his beef from America, his mutton from Australasia, his cheese also from America; there is not 50 per cent of him that is British produce; more than half has been bought and paid for. And yet we send him away, duty

free, to make lathes, or bicycles, or rails, or agricultural implements to drive us out of our ancient markets."

Valve of Many Virtues.

Innovations in tire valves are rare nowadays, so rare that when a firm like C. B. Barker & Co., of this city, undertake the marketing of a new valve it is reasonably convincing that the article must be possessed of more than usual merit.

By this token the fact that Barker & Co. have taken up and are pushing the Hilton capless valve, shown by the accompanying illustration, conveys its own moral. And it is not to be denied that the Hilton merits



general consideration. That a valve, without being freakish in the slightest degree, should dispense not only with the often lost or mislaid cap, but with springs as well, is sufficient to attract attention.

It was these features that appealed strongly to the Barker manager, Harris Parker.

"Why," he said to the *Bicycling World* man, "we sell as many valve springs for replacement as we sell valves themselves."

As the Barker jobbing trade is an extensive one, this testimony cannot but bear weight.

As to the caplessness and springlessness of the Hilton valve there is added a guarantee of airtightness, there would seem nothing lacking. More than this, every part is plated inside and out, thereby adding rust-proofness to its other virtues.

As the illustration makes plain, the valve is as simple as it is ingenious. Cut No. 1 shows it ready for inflation; No. 2 shows the case rubber washer; Nos. 3 and 4 show sectional views of a shoe valve and rubber stem valve. The air pressure closing the valve automatically, the rubber washer preventing the plunger on the valve seat from sticking or the rubber getting out of order.

In operation the valve is simple and time saving: To inflate a tire, turn the union back on top of the valve, the same as the cap on other valves; then screw in the pump connection. If the pump has no swivel hold the pump on the valve and turn the union. It will open the valve and connect pump at same time. If it is desired to deflate the tire, turn the union back and press on the plunger. If the tires need tire fluid, the valve can be taken apart with the fingers.

PREDICTS AN UPHEAVAL

Says Riders Will Rebel Against Weight, but the Prophet is in England.

On this side of the water the subject of weight is one that is rarely touched on. It is no longer a living issue—that is, one which is discussed and argued about and made a part of the bargain for a new machine.

Riders still entertain the belief that lighter cycles would be a good thing. But they regard the subject—if they think of it at all—with something approaching indifference, and if they were pressed for details as to how the reduction was to be obtained they would be quite at sea. Even chainless machines, against which their excessive weight, so called, was once the chief cause of cavil, seldom have this reproach urged. The gears necessarily add a little weight, and that is all there is to say about it.

It is pretty certain that the chief reason for this indifference is to be found in the meagreness of the American machine in the matter of equipment. Just as little impedimenta as possible is carried, and in this way the weight of most machines is kept under thirty pounds. Consequently, there being nothing really excessive about the total weight of machine and equipment, there is no ground for discontent.

Just the opposite course is pursued by British riders. They load their machines down, until anything under thirty pounds is exceptional, and even the preposterous forty pounds is not unknown. As a natural result complaints are almost as thick as leaves in Vallombrosa, and the trade is sorely put to it to make a good defence.

The feeling that something must be done is a pretty general one, but the difficulties, even impossibilities, in the way almost preclude the outlining of any practical plan for accomplishing the desired object. While dodging the main issue, a writer in *Wheeling* prophesies that a revolution is at hand, and that next year machines will be reduced in weight almost one-third. He puts it in this wise:

A stranger called on me to-day and asked for an opinion as to the kind of cycle that would be in vogue next Stanley Show.

"My friend," I said, "we are on the eve of a great upheaval in cycle construction. The present cycle is doomed."

"The 'writing on the wall' is visible, and it is interpreted as follows: 'And it shall come to pass that the riders of cycles shall complain of the great and unnecessary weight of their vehicles. They shall demand that the weight shall be reduced almost one-third, and that a machine for a man of average weight, fitted with free wheel and two brakes, must be supplied to weigh not more than twenty-four pounds, including proper mudguards; that the large stocks held by makers of rough and finished materials must be melted down, and so trouble riders no more; and that riders will demand a machine of this kind, and there will be much tribulation among certain big houses, by reason of the outcry.'"

"But," cried my client, "bicycles cannot be reduced in weight."

Yet that is my opinion, and the prophecy and the warning I am giving to-day.

RACING

In marked contrast to his previous season in this country, Taylore is scoring wins from the start. He added another victory to his string at Baltimore on June 4, when he defeated Burns Pierce in a 20-mile motor-paced race. He was fortunate, however, in having less trouble with his pacing machines than his opponent, and to that fact his victory is entirely due. Pierce went to the front at the end of the first mile, and increased his lead to a lap. At 10 miles his pacing machine went wrong, and Taylore had gone to the front before he could get straightened out with the extra machine. Shortly after the latter, too, went wrong, and at 15 miles the race was practically over, Taylore having a lead which was not cut down. Taylore's time was 36.16 4-5, and he led at the finish by almost a mile.

That paced races are not necessary to win favor was again demonstrated at Vailsburg, N. J., on June 9, when nearly 10,000 people went wild over a day's sport that was unusually exciting even for that track. The culminating event was the 10-mile open professional. Prizes of \$1 for each lap and \$5 for each mile insured a hot pace, as is shown by the time, 23.48. It was a dingdong race clear through, the leaders constantly changing. The finish brought the crowd to its feet, and was of the blanket order. McFarland crossed the tape first, with Walthour coming like the wind; Newhouse was third and Kramer fourth, lapping him. Hurley performed his accustomed trick of winning two amateur races—the one-half and the two-mile.

After numerous failures, many of them accompanied by accidents, Albert Champion placed a win to his credit at Providence, R. I., on June 5. The occasion was a 25-mile motor-paced race with McEachern, and the winner's time was 41.48 2-5. The men were together at 12 miles, when something happened to McEachern's pacing tandem, and the latter was too close to avoid smashing into it. Champion gained half a mile before the fallen man got going again. At 15 miles McEachern again had trouble, his tire puncturing and causing him to lose four more laps. This seemed to discourage him, and he was unable to regain any of the distance.

It was McEachern's turn at Baltimore on June 11, after many disheartening defeats, and he made the most of it when he defeated Burns Pierce in a twenty-mile motor paced race in the fast time of 32:30. He was the logical winner, too, holding the lead throughout, stalling off Pierce's effort at the finish and crossing the tape some ten yards to the good. It was a magnificent race throughout, and received its due meed of appreciation from the spectators.

In much the same manner as last year, Burns Pierce defeated Michael at Philadelphia on June 8. The race was a three-cornered one between Pierce, Michael and McEachern, the distance being 30 miles, motor paced. It was hotly contested up to the 28th mile, when Michael, who had been leading from the 14th mile, was passed by Pierce, who was never again in danger. The winner's time was 48.58. Marcus Hurley, the New York amateur crack, kept up his winning streak, placing two races to his credit, the one-third mile handicap and the one-mile open.

At Charles River Park, Boston, on June 4, James Moran, the Chelsea milkman and ex-amateur sprint rider, demonstrated that he is equally at home at the motor-paced game. He defeated Ross and Champion in a 25-mile match race in 40.27, Ross being about two-thirds of a mile to the bad. Champion retired in the middle of the race. The Frenchman was suffering from the effects of repeated falls, and was on even terms with Moran when he retired. Ross was lapped at 15 miles, but successfully resisted all attempts to repeat this performance.

First impressions are frequently deceptive, and it is, therefore, scarcely fair to judge Tom Linton by his first race. When he has had more time to prepare himself and to get entirely rid of his sea legs he may turn the tables on Nelson, before whom he succumbed at Charles River Park, Boston, on June 11. The occasion was a twenty-five-mile motor paced race between the Swede and the Welshman, and the former won by a little less than a mile.

By way of preparation for his race with Linton, Nelson disposed of Champion in a fifteen-mile motor paced race at Worcester, Mass., on June 10. Nelson got the lead in the fourth mile, after a hard fight, and kept it to the finish, although at twelve miles his motor tandem went wrong and caused him to lose nearly all his lead. He finished a lap and a quarter in the lead, however, in 25:08.

All distances appear to be alike to McFarland, the big Californian. He annexed the 25-mile open and the 1-mile handicap at Revere Beach, Boston, on June 8, with equal facility. In the former race, of 20 starters but 4 were left at the finish. They included Jacobson, Moran and Nat. Butler, however, and they followed McFarland in that order, the time being 60.28.

Two days after his defeat at Baltimore, Pierce turned the tables on Taylore by winning a twenty-five mile motor paced race at Washington, D. C., on June 6. The race was never in serious doubt after the second mile, for Pierce had then gained a lap and continued to add succeeding ones to his lead at frequent intervals. At the finish, reached in 42:21, he was one and one-half miles ahead.

The Retail Record.

BURGLARY.

Fort Wayne, Ind.—Himes & Rosenwinkel, \$900 taken from safe. No clew to the burglar.

EMBARRASMENTS.

Philadelphia, Pa.—William J. Bishop, filed involuntary petition in bankruptcy.

FIRES.

Quincy, Ill.—Tenk Hardware Co.

Columbus, O.—Oscar Lear, insured.

Ogden, Utah—B. Goodsell, loss \$400.

Rocky Ford, Col.—Dawley Hardware and Furniture Co.

Rock Island, Ill.—J. Hynes, Fourth avenue, damage \$150, insured.

NEW STORES.

Amsden, Vt.—Fred. Perry.

Seymour, Conn.—S. Lombardi, repairing.

Merrill, Wis.—W. B. Hicks, 507 West Main street.

Glens Falls, N. Y.—L. E. Sexton, Wake-man Building.

East Manchester, N. H.—George A. Stearns, Massabesic street.

Williamsport, Pa.—W. R. Watson, branch at 614 East Third street.

CHANGES.

Worthington, Ind.—W. D. Stallcup, sold out.

Piqua, Kan.—George Grogman, sold out.

Fort Wayne, Ind.—Himes & Rosenwinkel, dissolved partnership.

Delphi, Ind.—H. W. Sidenbender, gone out of business.

Durant, Miss.—Hooper & Morgan succeed Hooper Bros.

Lake Mills Ia.—E. L. Moen succeeds R. W. Lloyd.

Humboldt, Neb.—Skalak & Son succeed Scott & Skalak.

Dansville, N. Y.—A. H. Jenks succeeds C. F. Bates.

Rosendale, Mo.—Louis F. Holt succeeds H. N. Anderson.

Derry, N. H.—J. F. Paquette removed to Bank Building.

Mohawk, N. Y.—R. L. Loucks succeeds Waldo E. Woodcock.

Ballston Spa, N. Y.—T. W. Nichols succeeds Kerley & Co.

Plainfield, N. J.—George W. Wrennick succeeds William H. Rogers.

Worcester, Mass.—James Milligan succeeds Victor Eckberg.

Nashua, N. H.—A. C. Pollard, Holman Block, bought out N. W. Tarbell & Co.

Newton, Mass.—C. F. Pond, jr., removed to 343 Auburn street.

Ann Arbor, Mich.—M. Stabler will not discontinue, as was stated in error.

They Knew a Good Thing.

In the first three days of a recent week the Eclipse Mfg. Co. received orders for 12,000 Morrow coaster-brakes. Among them were orders from England and Australia.

FEATURES THAT FAIL

How and Why They Hurt, not Help, Foreign Trade—Some Typical Instances.

Of the great and growing fund of information which the *Bicycling World* has gathered from all parts of the world in preparation for its export issues, nothing is fuller of information that really informs than the report received from Marseilles, France. The correspondent is himself an American wheelman, in touch with the French trade, and he is therefore in position to give the very information and advice that should be of benefit to the American trade. He writes:

"The relative unimportance of the American bicycle in this important market is due to a variety of causes. In the first place, the French automobile has displaced the bicycle entirely among a large and increasing class of people, with the result that the bicycles formerly owned by drivers of automobiles are constantly being offered for sale at very low prices, and are being taken up by persons who might otherwise be disposed to purchase new wheels. Among the well-to-do the automobile has come to stay, and, broadly speaking, the future demand in France for bicycles will be limited to those whose small means prevent them from providing themselves with automobiles.

"Those who ride American wheels in this part of France are well pleased with them, but I fancy that the beautiful mechanism and gracefully-lined frames are unappreciated by the average small dealer or buyer. The case, as bluntly put to me by a very considerable dealer in this city, is clothed in the following words:

"The American machines sell fairly readily, but are too expensive, commanding from 280 francs (\$54) to 400 francs (\$77), while the demand is more particularly for machines at about 200 francs (\$38). American machines, while very elegant and ingenious, are too complicated in the fittings. Simpler arrangements are preferred. American pedals and other fittings are inferior to British, and less durable."

"The same opinion was also proffered by one or two other well-known dealers. In my own opinion, this view of the American machine is the result of ignorance. The average local bicycle dealer and repairer familiar with the simple and rather crude exposed bolts and fittings of the foreign machine is nonplussed when called upon to take charge of an American machine, and he has no one to look to for instruction.

"I had a personal experience of this sort a year or two ago, upon the receipt of an American wheel of the very best type. When I called upon a French dealer to adjust the separate parts he found himself completely at sea, and denounced the fittings of the handle bar generally, and specifically accused the exporter of neglecting to supply a certain bolt, for which he drew a design. A little

careful study of the book of instructions in my possession, coupled with assistance from another mechanic, finally enabled the gentleman to overcome the alleged defect of the machine, which has been running from that day to this without the expenditure of a cent for repairs. Nevertheless, the incident illustrates a condition largely due, in my opinion, to the absence from this field of the well-equipped travelling salesman.

"Important as this market is, I have yet to hear of a first-class American salesman with a proper mechanical knowledge, as well as a proper knowledge of the language, to visit this country in four years, while during the same period the travelling agents of French and other houses make frequent visits to the local dealers. The latter are willing to admit that our machines are elegant and ingenious, as the above-quoted dealer put it; but they find the mechanism



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

complicated, and the only instructions they receive are derived from illustrated catalogues. Our manufacturers are too prone to establish general selling agencies in Paris and distribute elaborate catalogues and posters. This done, they leave the machines to sell themselves. I have no personal doubt that if to the efforts already being made should be added persistent missionary work among the local dealers, coupled with mechanical instruction, very satisfactory results would follow.

"I attribute the universal use in France of the double-tubed tire to the unfamiliarity of riders and dealers with the advantages claimed for the single tire in the United States. I fully comprehended why the double tire was preferred before I had had my own single-tube tires in use a month. Having been so unfortunate as to seriously puncture the rubber while en route, I called upon a French repairer to supply a remedy. He did the best he could, but his cement failed to hold, and the tire was practically useless for months.

"At the end of that time I procured from the United States a supply of first-class cement, and although by no means endowed with mechanical skill I was enabled to make a repair in five minutes, which has held good from that day until this, to the amazement of the man whose business it was to make such repairs and who had so completely failed. Since that time a number of my friends have noticed how quickly I am able to make slight repairs to my tires, and would be glad to be equally well equipped."

The Lamp for Physicians.

From time immemorial bicycle lamps have been made with ample provision for side and rear lights. When such lamps were attached to the big wheel axle of the ordinary bicycle the rear light was especially important, but with the coming of the safety and the consequent change in the matter of attachment—the head of the machine being usually selected—it ceased to be so.

A lamp with a novel arrangement of side lights has attracted the attention of the venerable and impeccable *Lancet* of London, which feels impelled to extol it in high terms.

"This article," it says, "the cycle and motor car lamp of John Cassels, is particularly recommended to medical men who use the cycle for night calls. It reduces the strain upon the nerves. There is practically no danger of being run into from behind, and the rider is able to see his pedals for mounting.

"The movement is extremely simple, and consists in fixing to each side of the lamp a glass prism placed in an oblique direction from above downward and forward. One of the faces of the prism is almost at right angles to the side of the lamp, and throws a beam of light backward and downward."

Smith is Satisfied.

Howard O. Smith, president of the G. & J. Tire Co., Indianapolis, visited New York this week. Mr. Smith reports an excellent trade for G. & J. tires throughout the country, both in the bicycle and automobile business. While he says the rainy season has delayed business somewhat, the demand for G. & J. tires has shown a gradual increase, and the company is more than pleased with the business already done, which is clearly traceable to the aggressive policy that has prevailed since Mr. Smith's administration of affairs.

Mail-Order Tires.

"The *Bicycling World's* exposure of the tricks of the mail-order houses was read and heartily approved by me," writes Charles Cunningham, a Youngstown (Pa.) dealer. "Your arguments are right in line with the ones I have been making use of for several years. I have one of those 'high-grade' bicycles here now for repairs, and it is fitted with the 'high-grade' 'Clipper' double-tube tires (cheap single tubes ripped open and cheap inner tubes put into them), which never held air long enough for the owner to try it."

The Week's Patents.

675,387. Motor Bicycle. Robert M. Keating, Middletown, Conn., assignor to R. M. Keating Motor Co., Portland, Me. Filed June 18, 1900. Serial No. 20,632. (No model.)

Claim.—1. In a motor bicycle, the frame having open-ended sockets projecting from the crank hanger and rear lower bars respectively, and a motor casing having lugs to fit such sockets, the casing thus forming an extension of the lower rear bars, and being removable from the side of the frame, substantially as described.

675,388. Motor Bicycle. Robert M. Keating, Middletown, Conn., assignor to R. M. Keating Motor Co., Portland, Me. Filed July 5, 1900. Serial No. 22,479. (No model.)

Claim.—1. In a motor bicycle, the frame consisting essentially of the steering head, top bar, lower front bar, lower and upper rear bars, and seat post bar or centre brace arranged as described, a crank hanger bracket at the junction of the lower front bar and the seatpost bar, and having a crank and driving sprocket wheel, driving mechanism extending from said sprocket wheel to the rear hub as usual, and a motor engine secured to the centre brace, in rear thereof, and having a sprocket pinion engaging the driving mechanism which connects to the rear hub, substantially as described.

675,389. Motor Bicycle. Robert M. Keating, Middletown, Conn., assignor to R. M. Keating Motor Co., Portland, Me. Filed July 6, 1900. Serial No. 22,662. (No model.)

Claim.—1. The combination, in a motor bicycle, of a pedal crank shaft, a brake operatively connected thereto by a clutch to be worked by back pedalling, a driving pinion on said shaft and engaging the driving motor engine to be propelled thereby, a sprocket wheel and means for coupling or uncoupling the same with the driving pinion, and means for driving the sprocket from the pedal shaft, substantially as described.

675,391. Bicycle Frame. Robert M. Keating, Middletown, Conn., assignor to R. M. Keating Motor Co., Portland, Me. Filed Dec. 8, 1900. Serial No. 39,177. (No model.)

Claim.—1. A frame for motor bicycles, having front post, top and bottom bars, and seatpost connected to the pedal bracket as described, the upper rear bars connected to the seatpost and wheel forks, the lower rear bars connected to the wheel forks and joined by a crossbar at the front, the pedal bracket having a perforated upright leaf, and the engine frame provided with bolts by which the engine is held to the pedal bracket in front, and to the said crossbar in the rear, substantially as described.

675,392. Pedal Brake and Controller for Motorcycles. Robert M. Keating, Middletown, Conn., assignor to R. M. Keating Motor Co., Portland, Me. Filed Dec. 8, 1900. Serial No. 39,178. (No model.)

Claim.—1. In combination with a motor-driven wheel of a bicycle, a pedal shaft and a clutch by which the pedals may be brought into driving relation as a reinforcement to the motor, and a clutch operated by the back movement by which the engine is thrown out of driving engagement, substantially as described.

675,393. Motor Bicycle. Robert M. Keating, Middletown, Conn., assignor to R. M. Keating Motor Co., Portland, Me. Filed March 28, 1901. Serial No. 53,198. (No model.)

Claim.—1. In a motor bicycle, the front

and rear lower bars connected by a strut, the engine resting on the strut and having geared connection to a sleeve on the pedal shaft, a bevel gear on this sleeve, and a bevel gear on a shaft in one of the frame bars, said shaft being in geared connection with the driving hub, all combined substantially as described.

675,453. Tow Line. George F. Sturgess, Leicester, Eng. Filed Oct. 4, 1897. Renewed Nov. 14, 1900. Serial No. 36,514. (No model.)

Claim.—1. In a tow line or link for light vehicles, in combination, means to protect the line from wear and exposure, composed of the casing, provided with a connecting swivel and rubber buffers, and further provided with a detachable lid and anti-friction cord rollers, the line reel provided with flanges and an aperture through which the line is threaded and fastened onto the centre pin, upon which the line reel revolves in a manner as to throw the strain of the line onto the casing, the metal of the edge of the said aperture being turned back upon itself, substantially as and for the purposes set forth.

675,458. Motor Vehicle. Edward Y. White, San Antonio, Tex. Filed Nov. 8, 1900. Serial No. 35,858. (No model.)

Claim.—1. In a motor bicycle, the frame having a drop basket or cradle connected to the top bar and extending below the lower frame bar and a power motor supported on a spring in the said cradle and guided to rise and fall therein.

675,498. Muffler for Engines. Hiram M. Quick, Paterson, N. J., assignor of one-half to Henry B. King, same place. Filed Feb. 26, 1901. (No model.)

Claim.—In a muffler for explosion engines, two heads provided on their inner faces with concentric annular grooves, one of said heads having a central aperture, in combination with a tube passing through the central aperture in one head, and into one of the annular grooves in the opposite head, said tube being provided with a longitudinal slot in the bottom thereof, a cylinder of larger diameter than said tube, each end of which is adapted to fit into one of said annular grooves around said inner tube, said cylinder being provided with a longitudinal slot in the top thereof, and a still larger or outermost cylinder fitting in like manner into annular grooves on the opposite heads, around said last-mentioned cylinder, and provided with a longitudinal slot in the bottom thereof, to permit the passage of the exhaust through said tube, and through said cylinders to the atmosphere, and means for securing said tube and cylinders in position between said heads, substantially as set forth.

675,501. Valve Gear for Explosive Engines. William G. Stolz, Brooklyn, N. Y. Filed Feb. 5, 1901. Serial No. 46,042. (No model.)

Claim.—1. In an explosive engine, a suction inlet valve and a supplemental device for operating said valve should it fail to operate by suction, said device comprising a spring-actuated plunger rod arranged to strike the valve rod, a pivoted lever arranged to strike the plunger rod, and suitable means for operating the lever, substantially as and for the purpose set forth.

675,502. Chain and Sprocket Guard. David L. Thomas, Wheatland, Wyo. Filed Jan. 16, 1901. Serial No. 43,526. (No model.)

Claim.—1. A sprocket and chain guard consisting of a flat central portion and a flat laterally offset peripheral portion, having a

connecting web, the central portion having an opening to receive a crank axle and the offset portion having an opening formed radially therethrough to receive a crank, said central and peripheral portions lying in parallel planes.

675,557. Electric Igniter for Explosive Engines. Walter H. Cotton, Chicago, Ill., assignor of one-half to Albert Kunze, same place. Filed May 21, 1900. Serial No. 17,474. (No model.)

Claim.—1. In an electric igniter, in combination, a generator, a circuit leading therefrom, an electro-magnet incorporated into such circuit, a circuit breaker, a branch or shunt circuit leading from the first-named circuit, an induction coil incorporated into the branch or shunt circuit, a pair of spring-separated electrodes in the branch or shunt circuit, and means actuated by the electro-magnet for closing the electrodes against the resistance of the spring.

675,617. Velocipede Bearing. George E. Bartholomew, Buffalo, N. Y., assignor of one-half to Albert A. Engle, same place. Filed Oct. 4, 1900. Serial No. 31,984. (No model.)

Claim.—1. The combination with a casing, of grooved bearing rings arranged at opposite ends of the casing and each forming the outer wall of an annular race, one of said bearing rings being held against lateral displacement in the casing and the other being capable of moving toward and from said fixed ring, a pair of bearing cones arranged within each of said bearing rings and forming together the inner wall of said race, a sleeve which connects the inner cones of the two sets and which is capable of moving laterally in the casing, and rolling bearing members interposed between each of said grooved rings and the opposing cones, substantially as set forth.

675,676. Bicycle Lock. Earl F. L. Russell and Charles M. Brown, Denver, Colo. Filed Nov. 16, 1900. Serial No. 36,723. (No model.)

Claim.—1. A bicycle lock comprising a body part, a bolt carried thereby and serving to engage a mobile part of the bicycle, means working with the bolt to advance and retract the same, a dog serving to hold the bolt in applied position, a key-slotted arbor on which the dog is mounted, an intermediately pivoted tumbler mounted independently of the arbor and having one end normally engaged with the arbor to hold it, the other end of the tumbler being engageable with the arbor to hold it when the tumbler is thrown excessively, and a key-actuated pin slidably carried in the arbor and adapted to engage the tumbler to throw it to releasing position.

675,618. Roller Bearing. George E. Bartholomew, Buffalo, N. Y., assignor of one-half to Albert A. Engle, same place. Filed Dec. 24, 1900. Serial No. 40,927. (No model.)

Claim.—1. The combination with a tapering shaft or spindle, and a casing surrounding the same, of an expansible sleeve having a tapering bore which fits said spindle, an adjusting device for shifting said sleeve lengthwise on said spindle, and rollers interposed between said sleeve and the surrounding casing, substantially as set forth.

675,697. Elastic Tire. William F. Williams, London, Eng. Filed Feb. 21, 1901. Serial No. 48,315. (No model.)

Claim.—1. The combination with a hollow rubber wheel tire of substantially D section, of spiral springs extending in arched form around the outer part of the bore of the tire

with their ends presented toward the base of the tire, and of a fibrous cord or cords passing through the springs and extending across the flat base of the tire, the springs and cord or cords being embedded in the rubber at intervals with rubber intervening between the springs, substantially as specified.

675,765. Joint for Detachable Bicycle Frames. James H. Barry, London, Eng. Filed May 27, 1900. Serial No. 17,708. (No model.)

Claim.—In a detachable bicycle frame, the combination with an interiorly hollow tapered socket piece rigidly secured to the frame proper, an angularly disposed aperture in the side of the said socket piece, an angularly disposed shoulder formed integral with the outer tubing, interiorly screw-threaded to align with the aperture in the side of said socket piece, a tapered plug having a substantially V-shaped recessed portion adapted to be inserted in said socket piece, and an angularly disposed and inwardly pointed set-screw mounted in said shoulder, obliquely engaging with the recessed portion of said tapered plug, whereby the thrust of the screw forces the plug into the socket, thereby making a tight joint, substantially as described.

675,796. Two-Stroke Cycle Gas Motor Engine. Hermann Schumm, Bonn, and Max Munzel, Mulheim, Germany, assignors to the Otto Gas Engine Works, Philadelphia, Pa. Filed Dec. 11, 1899. Serial No. 739,944. (No model.)

Claim.—1. In a two-stroke cycle gas motor having no compression space in the cylinder, means for forcing a scavenger charge of air into the space intervening between the piston and cylinder of said engine just before the piston reaches the inner dead centre, means for operating a charging valve for introducing a charge of previously intimately mixed gas and air to the cylinder during a portion of the outstroke of the piston, and means for firing said charge when said valve is closed.

675,817. Bicycle Bell. Simon Cooper, Worcester, Mass. Filed Feb. 23, 1897. Serial No. 734,778. (No model.)

Claim.—In an automatic bell for bicycles, or other vehicles, the combination with the dome of a bell, of a three-armed pivoted lever, one of said arms adapted to be struck by a striker carried by the wheel of the vehicle whereby said lever is rocked in one direction, a second arm projecting beyond the dome of the bell and provided with a weight applied to rock said lever and carry it out of the path of the striker, a yielding connection between said second arm and the fixed framework of the vehicle, a third elastic, or yielding, arm and a hammer carried by said elastic, or yielding, arm, substantially as described.

Wanted all the Improvements.

If there were more riders of the sort encountered by a Detroit dealer recently the trade would undoubtedly be in a better frame of mind. The picture is a bit overdrawn, of course; but that there are many buyers who want the best and are willing to pay for it is undoubtedly true.

"Something of the sentiment that is being shown by the bicycle buyers this spring was revealed the other day by the remarks of a man who was in my store seeking a new mount," this dealer is quoted as saying.

"He admitted that he had not ridden much last year, and that his 1899 wheel was altogether out of date. He said he wanted a chainless with cushion frame and coaster-brake. A friend who was with him remarked that he was going it rather steep, and suggested to him that he might omit the cushion frame. The intending purchaser replied:

"Not a bit of it! Now that I realize my mistake in neglecting the wheel, I am going to do the thing up right. I am going the whole hog. I want the newest, up-to-datest thing there is out, and hang the expense! Wheels are too cheap, anyhow. If they cost more they would be better appreciated."

Single Tube's Foreign Enemies.

Dealing with the obstacles which the single-tube tire encounters abroad, the manager of Single Tubes, Ltd., London, states that the worst enemy of the single-tube tire is the careless fitter and repairer.

"I find that large numbers of people simply will not take the trouble to understand how to properly fit or repair these tires," he continues. "This company supplies everything for doing it correctly and the fullest instructions. The fitting and repair is most easy to learn, in proof of which all repairs here are done by a lad of about seventeen years of age. I know two ladies, wives of cycle agents, who make nice little sums of money by having single-tube tires which require repair collected from other cycle agents, and carrying out these very easy repairs with their own hands. Because it is not a regular line, and an order for single-tube repair does not come in every day, the ordinary cycle agent prefers to get this done outside. This apathetic attitude is another of the causes of our not making headway with the trade so readily as we could wish."

COMFORT

with

SPEED

Is the

CUSHION FRAME

Motto.

The CUSHION FRAME is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold WITHOUT IN THE LEAST DETRACTING from the SPEED or POWER of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy, "get there" riders who at first "scoffed" the idea of COMFORT being combined with "speed and power" in a bicycle.

HYGIENIC WHEEL CO.,

220 Broadway New York.

Owners of the Cushion Frame Patents

FOR 18 YEARS

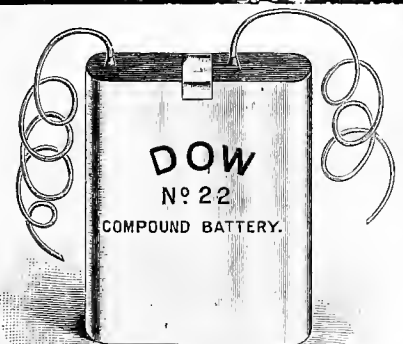


we have made a specialty of the manufacture of OILERS. We make a careful study of every detail and are constantly improving our oilers in every way possible. We make oilers for practically the entire trade, and are confident the QUALITY of our goods cannot be equaled at the price. Only the best quality of elastic metal is used. The washers are of specially selected (not scrap) leather. The threads are well made and tight, not stamped on body of oiler. The soldering is tested under hydraulic pressure, etc., etc. Every oiler made by us bears our name. Beware of cheap imitations. A rider's appreciation of a first-class oiler in his equipment is more than worth the slight extra cost.

CUSHMAN & DENISON, Mfrs.,

240-242 W. 23d Street,

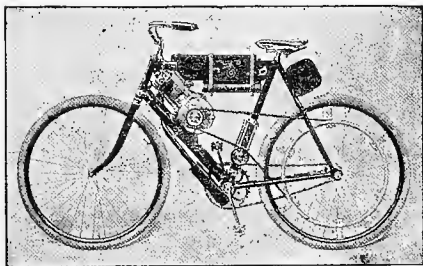
NEW YORK.



If you are looking for the best DRY BATTERY on the market, buy the DOW, and accept no other. For catalogues and price list send to the DOW PORTABLE ELECTRIC CO. Offices: 218 Tremont St., Boston, Mass.; 1135 Broadway, New York, N. Y.; Lippincott Bldg., 12th and Filbert Sts., Philadelphia, Pa. 160 Washington St., Chicago, Ill.

THERE IS ONLY ONE MOTOR BICYCLE THAT IS USED BY HUNDREDS. THAT MOTOR BI- CYCLE IS THE AUTO-BI.

Its economy, its speed, the pleasures it gives, the miles it will travel, and many other points of its superlative excellence are daily told us through the mail.

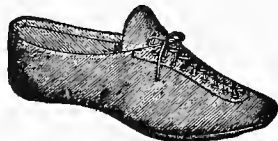


We have collated much of this overwhelming and voluntary testimony in printed form. Send for a copy with a realistic cover in four colors. Don't miss it. It is yours for the asking.

E. R. THOMAS MOTOR CO.,

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**Call's RACING SUIT
AND SHOES.**

The old reliable racing outfits. I have furnished all the crack racers with their outfits. Why not you?

Cotton 1-4 Sleeve Shirt and Knee Tight, Plain,	\$.50
" " " " " Fancy,	.75
Worsted " " " " " Plain,	1.50
" " " " " Fancy,	\$2.75 to 10.00
Call's Racing Shoes, Strong and Durable,	1.50

S. B. CALL,

Send for Catalogue.

Massasoit Block, Springfield, Mass.

NEW SYSTEM

of Gasolene Engine Ignition, "Autogas" Dry Battery, double porcelain insulated Ignition Plug, Secondary Coil, etc.

WILL SEND

1/3 DOZ.

of my Automobile Dry Battery anywhere, f. o. b. New York.

FOR \$3.

Write to-day for circulars, and mention
Bicycling World.

WILLIAM ROCHE,

Inventor and Sole Manufacturer of New Standard Specialties.
42 VESKY STREET, NEW YORK CITY.

Is Worked by the Hands.

Following close on the heels of the pedal-driven machine came the one propelled by the hands. To those unfortunates who were deprived, either wholly or partly, of the use of their feet there seemed no reason why the hands would not make a fair substitute. Consequently there has always been some sale for machines of this description.

But they move slowly, and it does not take very much to congest the channels through which they reach the public. This fact, however, does not appear to have deterred a Plainfield (N. J.) man, W. E. Brock by name, who has invented and is manufacturing such a machine. Curiously enough, although he is evidently under the impression that the vehicle is entirely new, he calls it the "Manumotor," the very name under which it has most often appeared.

The inventor claims to have worked out for practical use a new mechanical movement. The art of propelling the machine is similar to the movement necessary in rowing, though the expenditure of energy is much reduced. Its mechanical construction is a clever combination of oscillating levers and fulcrums. With very little effort it is claimed that a speed of from twelve to fifteen miles an hour can be attained on the vehicle. The machine is intended to answer many requirements. It can be used for recreation, racing, athletic training and business purposes. The motor power, it is said, is alike useful for boats and for running machinery.

Caution as to Rim-cut Tires.

It does not appear generally understood that the tire manufacturers are agreed not to "stand good" for rim-cut tires. The Rubber Tire Association voted that "all tires cut on rims, from whatever cause, shall not be replaced, unless there is an apparent defect in material or workmanship of the tire."

In calling attention to the fact, the Goodrich people add: "Examine your tires and see that they are securely cemented on all the way round. If not, do not use them until they have been. This is important."

The old Granite State Right in it.

New Hampshire is not only a summer playground, but for that early vacationist, the fisherman, it is a rendezvous of wide renown.

Its mountains are known far and wide for their grandeur, but they are no more widely known than its lakes, of which few sections of the country have a greater number.

Some of them, like Winnepesaukee and Sunapee, are of great area and renowned fishing grounds, while others, numbering well towards a hundred, are of varying size but nevertheless excellent fishing resorts.

Every one of New Hampshire's lakes is more than well stocked with the choicest varieties of every kind of fish, and invariably their size is extraordinary.

There is one very prominent and favorable feature which makes the lakes of New Hampshire popular with the fishing fraternity, and that is the exceptional facilities for reaching them. The General Pass'r Dept. of the B. & M. R.R., Boston, issues several descriptive pamphlets on outdoor sports, namely, "Fishing and Hunting," "Lakes and Streams," "Lake Sunapee," either of which is sent to any address upon receipt of a two-cent stamp for each book. If you are a fisherman, send for them; they will interest you. ***

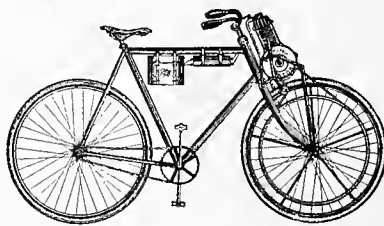
Gives Them Some Advice.

"You would not think of putting a patch on a new inner tube without removing the flower of sulphur with which it is covered," says an English writer, taking to task his countrymen for their "crass ignorance" displayed in the repair of single-tube tires.

"Yet you will cheerfully plug away at one hole in a single-tube tire and think you have repaired the trouble while you have left another hole entirely untouched. Only when you find out that your tire is what you are pleased to call porous will you discover that something is wrong, and when you do find these symptoms you will in disgust throw that tire on the scrap heap, oblivious of the fact that that same 'porosity,' as you are pleased to call it, is only the outward and visible sign of an inward and unrepaired single hole which you have neglected to attend to. Surely you are a slow-going set, you bright cycle men in the shops, or you would ere this have discovered the virtues of the single tube just the same as your cousins across the pond, more cute than you, have done and benefited by it.

Simplicity its Feature.

Score one more for American methods, this time in cycle construction. The British War Office has adopted, "as the result of trials of various methods of fastening," the method of attaching the pedals in universal use in this country, and it will be used on all cycles built for the War Office. The pins are screwed in the crank ends, the pin with a left-hand thread going on the left crank, and the one with a right-hand thread on the right crank. No locking nut is used. It is stated, significantly, of this method that "its simplicity is a distinct gain to the manufacturers."



PRICE \$200.00.

We are now making deliveries of the

"FLEMING" MOTOR BICYCLE

Built for business—as our motors have already proven. A few good agents wanted.

FLEMING MOTOR VEHICLE CO., 93-97 ELIZABETH ST.,
NEW YORK, N. Y.

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., June 20, 1901.

No. 12

PERSONS'S PLANS UNFOLD

Will Manufacture in Overman Plant—How he will Market Royal Motor Bicycles.

Charles A. Persons has scored again in his determination and efforts to establish himself in the motorcycle business in a position second to none; his latest move will undoubtedly prove in the nature of a considerable surprise.

In short, the Royal Motor Works, of which Persons is the head, has secured a portion of the Overman Wheel Co. plant, at Chicopee Falls, wherein their motor bicycles will be manufactured under contract by the J. Stevens Arms and Tool Co., whose long established reputation for fine work is quite in keeping with the famous Victor factory. Emil Hafelfinger, the inventor of the bicycle, will be the manufacturing foreman, and will have charge of the making of the motors and the parts operating with them. He will also superintend the assembling and final adjusting and testing of each machine, and none will leave the factory without his personal approval.

Mr. Person reports that many agents have written to learn if orders will be accepted for early delivery, the long delays which followed the first announcements of other concerns causing them to fear that the Royal would not be out soon enough for them to make much progress with it this season. But pattern making was begun in April and pushed through rapidly, and the proper metal found and learned to such a nicety that permanent metal patterns have been made throughout, which furnish far more accurate parts than ordinary wooden patterns. As a result the Royal people start in Chicopee with the most difficult part of their work done, and as the material is all in sight it is confidently expected that the first lot of machines will have been completed and shipped within sixty days from this date.

It is the avowed policy of the Royal Motor Works to establish only such agencies as they can meet the wants of. In talking with Persons he explained the matter as follows:

"If, taking round figures, agents in Bos-

ton, New York, Philadelphia, Baltimore, Washington, Detroit, Buffalo, Chicago, Pittsburgh and Cleveland can dispose of an output of a thousand machines we will prefer to do business with those cities alone, averaging one hundred machines each, rather than with five hundred cities averaging two machines each.

"When an agent places his order for a number of motor bicycles, puts up his money, learns his machine from alpha to omega (don't get this mixed with your gasoline), breaks in his salesman, advertises, demonstrates and educates, he is entitled to the support of the manufacturer he represents, and you may bet that in the case of the Royal Motor Works he is going to get it. Let me tell you one of the causes for this. In 1896 a bright young man, then head salesman for one of the largest stores in New York, announced to me his discovery that one of the finest machines was not represented there, and he wanted me to back his scheme, take a store in Grand Circle and get the agency. I did. Ninety-six and 'seven were the boom years; the factory making the machines was spreading its output from the Atlantic to the Pacific; particularly to the Pacific, it seemed to us, and we got one wheel of about every ten ordered. I saw two seasons through and then had the place closed. It cost me \$4,000. Experience is a thorough teacher, and a man should give others the benefit of the lessons he learns. We are going to discriminate a bit in selecting our representatives, but when a man finally gets our goods he may really consider himself one of the Royal family."

Owen Gives Evidence.

H. S. Owen, who bought the bottom bracket patent from W. E. Smith and who sold it to the A. B. C., was on the stand in the A. B. C.-Snyder case last week. The hearing was private, but from the best information obtainable it is understood that Owen admitted that he paid Smith but \$9,000 for his entire business, including plant, good will and six patents. He is also said to have testified that he once offered the patent to the Pope Mfg. Co. for \$10,000, an offer that was declined, the Pope people not considering the patent worth the money, or any part of it.

CAN'T THROTTLE STEARNS

Court Denies an Injunction but Forbids Use of Yellow Enamel and Stearns Name.

Despite the fact that it was backed by 32 affidavits, the attempt of the American Bicycle Co. to prevent the sale of the bicycles marketed by the Stearns Bicycle Agency, of Syracuse, N. Y., and thereby force the Regal and the Holland out of the market, has failed of its purpose.

The A. B. C.'s prayer for an injunction restraining the Stearns people was heard in the United States Court at Utica on Tuesday of this week; the result was substantially a verdict for the Stearns interests—a verdict that seems to foreshadow the outcome of the Trust's suit for \$200,000 damages.

After hearing the arguments, Judge Cox denied the injunction prayed for, but ruled that the name Stearns must not appear on a yellow bicycle made by the defendants.

This, of course, affects the Regal bicycle, which has been finished in yellow enamel, and will require either a change of color or of nameplate.

Bound Bargain with Check.

After a deal of negotiation, and numerous rumors and denials, it looks as though the magnificent Keating plant at Middletown, Conn., has been disposed of. Dispatches from Middletown state that the plant and business of the Keating Wheel Co., which has been in the hands of Frederick A. Betts as receiver for two years, was sold to the Eisenhuth Horseless Vehicle Co., of New York, which will continue the operation of the plant at Middletown. Negotiations for the sale have been in progress for a number of weeks and last week a check to bind the bargain reached Receiver Betts. The price paid is not stated. The Keating Co. had a capital stock of \$500,000.

Admiral Locates in Marysville.

The Admiral Lamp Co. has completed its removal from Columbus, Ohio, to Marysville, that State, and is now in possession of its new factory at the latter place. In addition to the Admiral combination oil and gas lamp, several other specialties will be manufactured.

THOSE WHO HOLD LICENSES

**Authentic Information at Last Comes Out—
A List that Stands for Little.**

Whether an A. B. C. bottom-bracket license is a precious or a worthless piece of paper remains to be established, but certain it is that since litigation involving the Smith patent was recommenced few if any outside of Trust headquarters have had authentic information on the subject. At one time or another practically every independent manufacturer not included in the Cycle Trades Protective Association has been suspected of holding licenses requiring the payment of royalty. It has been a fertile theme for gossip.

When he gave his testimony in the suit last week, however, Colonel George Pope, vice-president of the American Bicycle Co., supplied the information that finally removes the morsel from the trade tongue. The evidence developed that the list of licensees is neither formidable nor impressive; in fact, it is distinctly disappointing. As supplied by Colonel Pope, the list, including the dates of the licenses, is as follows:

Acme Cycle Co.	Elkhart, Ind.	March 24, 1900
C. B. Barker & Co., Ltd.	New York, N. Y.	Dec. 12, 1899
Reading Standard Mfg. Co.	Reading, Pa.	Dec. 14, 1899
Excelsior Supply Co.	Chicago, Ill.	Dec. 20, 1899
Brown & Wales.	Boston, Mass.	Dec. 21, 1899
George W. Nock.	Philadelphia, Pa.	Jan. 17, 1900
Straight Mfg. Co.	Jamestown, N. Y.	Jan. 5, 1900
Northway & Kingsbury.	Rochester, N. Y.	Jan. 20, 1900
Ariel Cycle Mfg. Co.	Goshen, Ind.	Jan. 5, 1900
Demorest Mfg. Co.	Williamsport, Pa.	March 24, 1900
Janney, Semple, Hill & Co.	Minneapolis, Minn.	Feb. 13, 1900
Keystone Match and Machine Co.	Lebanon, Pa.	Feb. 15, 1900
Budd Bros. Mfg. Co.	Glens Falls, N. Y.	Jan. 25, 1900
Otto Konigslow.	Cleveland, Ohio.	Jan. 6, 1900
George Worthington Co.	Cleveland, Ohio.	March 6, 1900
Union Cycle Mfg. Co.	Highlandville, Mass.	Jan. 1, 1900
Davis Sewing Machine Co.	Dayton, Ohio.	May 17, 1900
Automobile and Cycle Parts Co.	Cleveland, Ohio.	April 15, 1901

Of the eighteen houses named, three are little more than local assemblers, six are jobbers and one is an A. B. C. annex. The other eight are (or were) manufacturers. One of them (the Union Co.) is dead, and three, if not four, of the remainder are more than half dead. The royalty represented will never help the Trust pay a dividend.

Takes an Expert Rider.

What is described by the Cyclist as "a novel sight" witnessed in the Strand, London, recently, was a cyclist who rode one machine, led a second by the hand and carried a third slung over his shoulders. Evidently "our English cousins" are not as smart as the "Yankees," for such sights as these have been noticed and frequently commented on in this country for a half dozen years or more. It was only a week or two ago that the writer noticed just such an occurrence on crowded Nassau street, this city, and beyond a few pedestrians who turned to look it attracted little attention. At the same time, it is not every rider who is equal to this task.

"Something Doing" in Tubes.

Developments of far-reaching importance in the tube trade are probable at any moment. Both parties to the deal, one of whom is the billion dollar United States Steel Corporation, are in conference in New York this week.

The Oldest in the World.

The Bicycling News, of Birmingham, England, is now a monthly publication, and is devoted in part to the automobile trade. The Bicycling World thus becomes the oldest weekly cycling journal in the world.

Absorbed the Excelsior.

The Excelsior Cement Co., of Westfield, Mass., has been absorbed by the National Cement and Rubber Co., of Toledo, Ohio. The purchase carries with it the entire plant, stock, goodwill and trademarks.

Formhals Quits; Department Ceases.

O. G. Formhals, advertising manager of the American Bicycle Co., has resigned, and that department has been discontinued. The Jimsullivan press working bureau, however, remains in full operation.

Goes About it in Wrong Way.

It is dollars to doughnuts that the Englishman who has invented and is about to market a front fork stay will have his labor for his pains. The device connects the front forks with the frame by running a tube from the crank hanger to a point immediately back of the tire, there separating it and allowing for play, and continuing it to the lower ends of the fork. This construction entails about two pounds extra weight. As the describer says, it would have been much better to have taken a portion of the extra weight and put it in the front forks, thereby making it doubly sure that a breakage could not occur at this most important point.

Quakers Return to Old Love.

Upon a recent visit to Philadelphia a wheelman remarked on the great increase in the number of riders seen as compared with a year ago. "The streets give the lie to the story that everybody has stopped riding," he says, "and it did my heart good to see the revival of the old pastime."

KEIM CASE QUICKLY SETTLED

He Agrees to Recognize Bottom-Bracket Patent but not on the \$1 Basis.

Quite unexpectedly it transpires that the suit of the American Bicycle Co. against John R. Keim, of Buffalo, for alleged infringement of the bottom bracket patents, has been settled out of court.

The accredited reports from Buffalo state that the suit in equity recently brought in the United States Circuit Court has been discontinued, and that the action has been settled by John R. Keim for a consideration of \$100.

From an authoritative source it is learned that Keim, in consideration of the payment of \$100, which covers roughly the court charges, is granted a license to manufacture the Smith bottom bracket under royalty. When asked if this royalty was the usual \$1 demanded by the A. B. C., The Bicycling World's informant half smiled, and replied that it was not. The \$1 royalty would continue in force, he said, but in the case of Keim an exception would be made and more reasonable terms granted.

It was also learned that negotiations looking to a settlement of this character were entered into with Keim a short time ago. They fell through, however. Then a second attempt was made to harmonize the differences existing. Their success is now made public.

It was further intimated that the terms offered Keim were so favorable that they could scarcely be rejected. Rather than enter upon a vexatious and expensive legal battle, the Buffalo maker finally decided to make peace.

Persons Promises a New Saddle.

The Persons Mfg. Co., of Worcester, Mass., are among the earliest in preparing for 1902, and the indications are that they will lead a vigorous campaign in saddles.

As a special model for use in factory equipment the Persons Company claim that they will have a saddle that no bicycle manufacturer can afford to overlook. It has been gotten up throughout with a view to exactly supplying the several conditions which differ from the demands of the jobber or dealer and a sale of not less than fifty thousand of this new pattern alone is confidently looked for.

The Persons people claim that their Royal Racer, containing a number of new features, among them the cable springs, strap loops for tool bags or packages, universal clamp and new tension adjustment proved a great boon to many jobbers, the sales in some establishments running into the thousands, in spite of the fact that this was the highest priced saddle in the market. The Royal Roadster is already cutting a strong figure in the retail trade, supplying a demand for a seat for coaster-brake bicycles and for heavy riders that has practically been unmet for two or three seasons.

WHAT THE WEATHER DID

Blighted Brightest Promise in Years—Wanamaker's Business as a Barometer.

Of the many department stores that projected themselves into the bicycle business during the boom period, the Wanamaker stores in New York and Philadelphia were the first to get down to a legitimate basis.

While those that remain still cling to the old methods and rely wholly on bargain-counter prices, the Wanamaker departments, while ever on the scent for real bargains in well-known bicycles, are, generally speaking, conducted quite as the legitimate cycle dealer conducts his affairs, but on a very much larger scale, of course. There are few, if any manufacturers, who would not intrust their agencies and reputations with the famous Philadelphia merchant, who, however, remains true to the Orient cause.

Wanamaker is so close to the people that none is better qualified to speak intelligently of the unpleasant part the miserable weather of March, April and May played on this year's business. When R. F. Bunting, the active head of the Wanamaker cycle departments in both cities, was questioned on this point he freely admitted that the rain had spoiled a season of unusual promise.

"Until the rain dampened everything," he said, "no season for several years promised greater sales. Not for a long while had we had so many inquiries and requests for catalogs, or so many callers and prospective buyers; this was true of both stores. Our repair departments also indicated an unusual season. Last year, in Philadelphia alone, we overhauled or repaired between 13,000 and 13,500 bicycles. Up to the first of May this year our record was 50 per cent ahead of the corresponding period of 1900. Then the rain apparently settled down to make a summer of it, and while repairs did not entirely cease coming in they fell off amazingly, and we are now behind last season's record—in the number of bicycles handled, if not in the amount of money earned," Bunting added, with a smile, indicating that the repair tariff was not as low as formerly prevailed. "We employ from fifteen to twenty repairmen," he went on, "and much of our work now is in applying coaster brakes to old wheels; we have averaged one hundred jobs of the sort for many weeks."

Asked if he anticipated any considerable volume of late sales, Bunting seemed doubtful.

"I'm afraid not," he smiled. "I think a little incident that happened a week or two ago shows the present disposition of possible purchasers. We sold three wheels to one family in a suburb near Philadelphia. In transit, they were scratched, and as the lady complained, we ordered the bicycles returned to us in order to 'make good.' With the bicycles, however, came a message that

as the season was so far advanced, the purchasers had changed their minds and decided that they did not now want the bicycles, but would wait until next year."

One thing Mr. Bunting did say that indicated a more wholesome state of affairs: Wanamaker has sold more high grade Orientals than ever before. Until the rain played havoc, he was unable to get them fast enough. On the other hand his "bargain sales" had not panned out so well. Last year he made a drive on Lovell Diamonds. The first day his two stores sold something more than 1,700. This year he made a similar splurge with Vikings, of which but 900 and odd were disposed of on the first day—and it is on the first day of such sales that the bulk of the business is done.

Bunting also reports an increased and increasing interest in motor bicycles. Tri-cycles, he says, are almost a drug on the market, but of motor bicycles (Orientals) it is safe to say that no other one dealer in the country has sold half so many as Wanamaker. Strange to say, Bunting vouches for the fact that their demand has been almost wholly for high powered, high priced (\$325) machines. The only one Wanamaker has on hand is a \$280 Orient.

Rood's Claim Cut Down.

Judge D. W. Northrop and Frank D. Haines, the committee on claims against the Keating Wheel and Automobile Co., of Middletown, Conn., have filed a supplemental report with the clerk of the Superior Court regarding the claim of C. J. Rood, of Springfield, Mass.

When Rood filed his first claim it was for \$201,000. This was objected to by Receiver Betts, as exorbitant, and Judge Thayer directed Rood to file an itemized account of his claim. He did, and the committee held a three-day's hearing. The revised accounts amounted to \$117,071.33. Of the disputed claims the committee disallowed \$15,592.34. This makes the total of Mr. Rood's claim against the company to be \$161,478.99. This report will be acted upon at the short calendar session of the Superior Court.

Blames his Collections.

Slow collections are to blame for voluntary assignment made last week to Fred. M. Bixby by W. H. Marble, a Brockton (Mass.) dealer. He stated that the reason for the assignment was that he was being pushed by one or two creditors and could not make collections fast enough to pay them.

He said that at least \$1.50 was owed him for every dollar that he owes, and in another month or two he would have been able to meet all his bills. The business will be continued just the same, and Marble is confident that with a little time he will be able to more than pay 100 cents on a dollar.

A meeting of the creditors was held at the office of Receiver Bixby on June 15, and the assets were given out as \$5,000 and the liabilities as \$3,000.

BEAR STRIKES A BLOW

Russia Resents our Cheese-Paring Policy and Handicaps American Bicycles.

In the retaliatory war now being waged between Russia and the United States bicycles have had the misfortune to be placed between the upper and the nether millstone. Consequently the export trade with Russia, now in a particularly flourishing condition, is likely to receive a serious check.

Particulars of the increased duty placed by the Russian government on bicycles, along with some other articles, were communicated to the State Department on Tuesday by the Russian ambassador. The reason assigned is the imposition by this government of a duty on Russian petroleum; this duty, in turn, is alleged to be the result of a tariff placed on American petroleum exported to Russia. The diplomats of the two countries have here food for almost endless discussion.

The maximum duty allowed under the Russian laws is, under this measure, imposed on bicycles, viz., an increase of 30 per cent. over that now in force. The present tariff is 18 rubles, or, roughly, \$9.50. With the 30 per cent. increase, \$2.85, added, the new duty will amount to \$12.35 per bicycle. This takes effect on June 21.

In a conversation with a prominent Russian export firm located in this city, a number of interesting facts in connection with this increase were brought out by The Bicycling World representative. Incidentally, it was developed that the new duty, which was known to be impending, accounts for a considerable portion of the large shipments of bicycles made to Russia made within the past few months.

In his remarks the member of the firm referred to inveighed bitterly against not only the Chinese Wall tariff policy adopted by the United States, but also against the methods employed by American merchants doing business in Russia.

He said that the whole trouble was brought on by the imposition of the duty on Russian sugar—an action that has "made the United States a laughing stock all over the world." The increased duty on bicycles, roughly \$2.85 each, was not prohibitive, but it did place American machines under a serious disadvantage. Heretofore all foreign bicycles were on an equality; now those made in this country would be handicapped to the extent of this 30 per cent. increase.

This informant also explained the new Russian custom regulations, whereby parts of bicycles were admitted as metal goods, instead of, as formerly, completed bicycles. Under the new classification such parts would be dutiable at the rate of \$4.40 for 36 pounds. The principal difficulty encountered, he claimed, would be in assembling these finished parts. It is plain, however, that could this be gotten over, a considerable saving would be effected.

In this connection it is interesting to recall that foreign journals are already felicitating themselves on the advantage their manufacturers will possess through the discrimination against American cycles and parts.

BOTTOM-BRACKET ROMANCE

How the Famous Suit Reunited Husband and Wife—Material for Novelists.

If the full history of the Smith bottom bracket patent, and all that has followed in its train, could be written it would make not only a thick volume, but one full of human interest. It is a subject rich in material for the novelist.

The early struggles of Smith, his failure, the sale of the patent to Owen for a song, the efforts of Owen to then dispose of it, the general derision of the patent by the trade, the organization of the Bicycle Trust, the triumph of Owen in the trust's purchase of the patent, which its officials had previously defied and scoffed, the trust's efforts to exact tribute from the independent trade, the legal warfare that has ensued, the startling reversal of attitudes, the gathering of testimony on two sides of the ocean, the emerging of Smith's wife from a nunnery to give evidence—all this gives but a small idea of the threads which might be interwoven in such a story. Pathos, bathos, cupidity, trickery, complicity, greed—practically all of the human passions would enter into the narration. Even romance is not lacking. In the story the name of A. J. Gould could not but figure largely, and it is around him that the chapter of romance would be written. It is a chapter that sounds as if taken from a novel, and yet every word is true.

It was Gould, an Englishman, who was Smith's fellow worker in Washington. It was Gould who returned to England and obtained the models from which the now famous bottom bracket was evolved, and it was Gould who, after many years of wandering, was finally located by the Cycle Trades Protective Association and brought into the proceedings instituted by the trust. Gould's testimony was so startling as to stagger the trust, but piece by piece it has been corroborated, until it forms, perhaps, the strongest link in the chain which promises to choke out the legality of the Smith patent. Gould is now in the employ of the protective association. In the gathering of evidence and the locating of witnesses he has played a part on both sides of the Atlantic, such a part that his friends have dubbed him the "bottom bracket sleuth." It was while in England, early this year, that his romance entered into the case.

Fifteen years before his wife had packed the bottom bracket models in his trunk, when he sailed for this country. In the whirligig of time wife and husband lost track of each other. In the great Johnstown, Penn., flood an A. J. Gould was drowned. Gould's wife and relatives in England read of it, and assuming it to be her husband, Mrs. Gould went into mourning and eight years ago married again. The husband meanwhile was very much alive in this country, and in April of last year took unto himself another wife. Then came the

bottom bracket litigation. Gould was found and called into the case. With the counsel for the Cycle Trades Protective Association he went to England to verify testimony he had given.

In seeking the necessary verification, he found many of his former fellow workmen, and through them the original Mrs. Gould, now of another name and the head of another household. He found also a daughter whom he had not seen since a child, and a brother who repudiated him as an imposter, until overwhelming proof convinced him that Gould really was his long lost and supposed drowned brother. Then followed explanation, reconciliation and reunion, and when Gould again returned to this country the original Mrs. Gould was with him. She is now with him in Chicago.

When Gould was in New York last week and told this romantic interjection into usually dry-as-dust patent litigation, he did not lose sight of the litigation itself.

"The lawyers and people now on the side of the Smith patent said I was 'only a common repair man,'" he said, with a touch of bitterness, "but I imagine they know differently now, and," he added, "I'll make it warm for them for quite a few years to come. We got proofs of more than one patent when we were in England."

Has a Double Inner Tube.

One more attempt to baffle the puncture demon is to be noted. It is of English origin, and is described as being two tubes, one inside the other. In section it will be found that the inner tube is to all intents and purposes a part of the outer tube for half the circumference—that is, the tube is double thickness at the tread, but from the half circumference downward the inside air tube is separate from the outer skin. Two valves are fitted, one in communication with the inner of the two air tubes and the other with the space between the two skins. In the ordinary way the tire is ridden with the inner tube inflated, but should a puncture occur, it is only necessary to deflate and then reinflate by the valve connected with the space between the two skins, with the result that the bottom thickness of the air tube at once comes up into the tread of the tire, bringing a new and unpunctured surface into operation, and, more than that, temporarily placing three thicknesses of rubber at the tread of the tire. Of course, it is not recommended that the machine should be ridden indefinitely in this way, but it stops the necessity for a roadside repair in the best possible manner.

Something Left to Divide.

Receiver Robert Carey, who was appointed receiver for Porter & Gilmour, Incorporated, manufacturers of bicycles, formerly at No. 16 Warren street, on July 21, 1896, has made a report of the affairs of the concern; it shows that the total cash received amounted to \$13,325 and the expenditures were \$10,077.

TROUBLES AND REMEDIES

Some of the Things that Affect Motorcycles—How They May be Avoided.

London, June 5.—Among the new things that have recently appeared on the market is a new type of sparking plug, one of which I have tried, with considerable success, upon a Werner bicycle. The porcelain is replaced by a number of talc washers, which are threaded over the central wire and cemented together with a patent cement, the constitution of which I do not know. The result is satisfactory, and it is claimed that the higher the temperature the better is the insulation of the plug, while there is no liability to crack. The same inventor has a somewhat similarly constructed plug which he uses for cars of the Benz type, and also for one or two of the more powerful motorcycles. In this the insulation contains two wires, and the induction coil is united to each of these, the frame portion of the circuit being thus done away with. It follows that the insulation can be much better protected from rain by this means, and on some machines the absence of the frame part of the current saves a number of misfires. There is yet a great deal to be done in improving the electric ignition of the light petrol motors.

The battery question, for instance, is a serious one. Sometimes the motorist may get a battery which will really last well and run his machine within a few miles of the distance which the maker assured him it would. But, on the other hand, there are many cases in which a battery will run out extremely quickly and for no apparent cause. This happened to me the other day. I had a new battery on the machine, and had only ridden the tricycle some three hundred miles when the motor took to firing very badly. I tested with the galvanometer for a short circuit, but without result. The battery had, however, run down from 10 amperes to 3, and was practically done for. As it had cost me some \$4 at trade price, I was a little disgusted, more especially as I had great difficulty in getting the machine to run home. Wet accumulators do not as a rule play such tricks as this, but there is the trouble of getting them recharged, which is often a serious matter in this country, where electric stations are few and far between, and electrical engineers less common still.

Another fruitful source of misfiring is the manner in which some of the commutators are mounted. The insulating plate carrying the platinum screw and the trembler often gets very loose on its bearing, with the result that it gets a shake when the motor is running fast and so prevents even contacts of the trembler. I had this occur on two separate machines, and the frequency of the detail trouble points to the fact that some form of easy lateral adjustment is wanted for the bearing of the insulating plate. It would not be a difficult matter to fit this, and it would, I am sure, be an improvement and prevent a great deal of trouble.

THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 649.

NEW YORK, JUNE 20, 1901.

After this week our New York post-office box will be No. 649, instead of No. 2349, as heretofore. Correspondents and patrons will please take notice.

Russia's Retaliation.

Russia is one of the few countries that have of recent months increased their purchases of American bicycles. From its standpoint, therefore, the action of the Russian Government in increasing the import duty to the limit of the law is shrewdly timed. From the standpoint of the American cycle trade, it is a discomfiting handicap that can be ill afforded.

At this stage, when the export of American cycle stuff is suffering a general decline, markets such as Russia that offer increased or reinvigorated trade are in the nature of welcome havens—doubly welcome when the

keenness and bitterness of English and German competition is considered.

The Russian increase is a pinch that will be felt by an industry that can least afford to be pinched. Not even patriotism, however, can disguise admiration for the shrewdness of the Russian move. If one were the Czar, he may readily imagine that he would meet American discrimination by just such retaliation as Russia has employed by finding the discriminator's weak spot and landing a blow there.

It is rather unpleasant that the sins of the petroleum industry should be visited upon the cycle trade, but for all of that none can criticise Russia. A little more retaliation of the sort may serve to bring the American politicians to a realization of the farcicality of their so-called protective tariff—a tariff which protects a few industries to the discomfiture of the many. In the case of bicycles, a tariff based on groundless fears and that is, and always was, absolutely unnecessary and as impolitic as a tax on Russian oil, none of which is sent to this country.

The American bicycle does not, and never did, require a penny's worth of such alleged "protection"—protection that not only did not and does not protect, but that has served, and is serving, to make harder our efforts to regain ground or to even hold our own in countries which resent or fail to appreciate our desire to enter their open or half open doors whilst maintaining a Chinese wall around our own preserves. Were the shoe on the other foot, we ourselves could scarce appreciate the delicious one-sidedness.

Make the Best of it.

That sales lost by rain or other evidences of a backward season are lost forever is a time honored belief.

Whether it is true in all lines of trade it is not for us to say. But there can be little doubt that it is perfectly true of the bicycle business.

With the present short selling season bad weather is doubly disastrous. It usually comes just at a time when brisk buying should be the rule, and prospective purchasers postpone taking the decisive step from week to week, and finally, when the warm weather comes, they frequently decide to make the old machine last through another season.

It is not often that the weather conditions are so unfavorable as they have been this year until very recently. What bade fair to be an active and generally good season was

struck amidsips, as it were, and it is only within the last two or three weeks that normal conditions have prevailed.

Nevertheless it is bad weather that the trade has come to dread the most. Indications go for nothing until it is seen whether rain and other natural enemies of the pastime are determined to interpose a veto.

"Give me good weather this spring and I will have one of the best seasons in all my experience," declared one large dealer in February.

Interrogated a short time ago, he admitted that the dreaded rain had quered his calculations.

He was doing better now, but he doubted whether he was getting any of the trade lost in April and May. It was possible that the selling season would continue a little longer than usual, but unless it did his forebodings would be realized.

It is unfortunate, of course, that it should have turned out so. But some comfort can be extracted from the extension of the season, if it can be coaxed to hold on, and to that end all dealers should bend their energies.

Take the Initiative.

It is possible, of course, that the average cycle dealer disdains to follow the example of merchants in other lines of business.

In no other way is it possible to understand his deep-rooted aversion to pushing his trade in little things.

He devotes his energies to the sale of bicycles, and when business in them falls off, temporarily or otherwise, he folds his hands and waits for a turn of the tide. With him business is good or bad as bicycles may be selling well or otherwise.

The little things—the lamps and bells and cyclometers and pumps and such articles—receive minor attention. It takes a great many of them to make a profit equal to that on a bicycle, even one of the cheapest class, and this is the fact that seems to impress itself most strongly on the dealer. He has no objection to making such sales, but he does not make any particular effort to increase them.

If some one comes in the store to buy some sundries or parts, well and good; the dealer will sell them cheerfully. Or if a customer after purchasing a bicycle shows a disposition to stock up with sundries there is no hesitation in supplying him.

But the dealer does not go out after trade of this character.

He rarely, sometimes never, advertises sun-

dries. If he has something attractive to offer—whether in the matter of novelty or price—he usually keeps the fact to himself.

He does not advertise his offering in the daily papers or in his store window. He waits for people to come in and ask for them; and usually he waits in vain. It could not very well be otherwise.

Other merchants do not conduct business in this manner. They persistently seek to acquaint customers—and outsiders, too—with the fact that they have something to interest them.

They are not content to sell goods that a customer wants. They seek to persuade him to invest in articles that he does not want at the time or did not think of. They take on themselves the burden of suggesting purchases, of inviting attention to articles that may or may not be wanted or thought of at the time; and in a considerable number of cases they are successful in effecting a sale.

It is here that most dealers are weak. They do not take the initiative. They are content to wait until possible buyers make up their minds that they want a particular article and come to them for it.

If they would try the other tack the result would surprise many of them.

Vale the Innovator!

It begins to look as if the innovator in cycle construction would, in future, lag superfluous on the stage, his occupation gone.

Certainly there is not much scope for the exercise of his peculiar talents. However fecund his imagination might be, he will find it difficult to obtain the approval of those in authority who would have to shoulder the responsibility for his departures from conventional lines.

For there cannot be the slightest shadow of doubt that conventionality is the fashion. We may even go farther and say that it is popular.

It almost goes without saying that if dissatisfaction existed with present patterns it would find a way to manifest itself. That there is not a ripple observable on the cycling sea almost bears out the contention that there is no such dissatisfaction.

It is no more than simple truth to say that trade and public are satisfied with the present day cycles.

There may be differences of opinion about details. Some may prefer the chainless, the cushion frame, or the coaster-brake to the standard patterns; there may be in some quarters a fondness for tubing of a slightly

different size, frames of a different height or shape, machines of a different weight; but each maker builds what suits his trade, just as each rider purchases what takes his fancy. There is no decided cleavage in either case.

The differences as to constructional details which formerly divided the trade and public, over which fierce and prolonged wordy battles were fought, no longer exist.

The bicycle is well nigh perfect, makers are almost a unit in declaring. There is no part that could be changed with advantage, they will add. Where there can be no improvement, in view of present knowledge, there should be no change, they conclude.

Formerly, when anything approaching this situation was reached, momentous changes were at hand.

Whether history will repeat itself in this case it is impossible to say. Not even the most clear-sighted observer can pierce the veil which obscures the future.

There is nothing to do but wait. Meanwhile, present patterns please, so there is no occasion for uneasiness on that score.

The "Strike" at Gasolene.

If the "striking" New York aldermen dare press their fool ordinance which seeks to abolish the use of gasolene in the first city of the Western continent, they will not only make the city appear as foolish as themselves, but will bring a storm about their ears of which they little dream.

The prominence of automobiles has had much to do with the prominence of gasolene in the public and aldermanic mind, and there is small doubt that the McEneaney measure is primarily a strike at the Standard Oil and automobile interests; the attitude and utterances of the committee after last Friday's hearing made this fairly plain. But when the gentle aldermen learn that gasolene, the danger of which has been just discovered, has been used for lo! these many years not only by "them rich automobile fellers" but by the printer, the painter, the plumber and the tailor, by the man that repairs bicycles tires and by tens of thousands of other men who have votes to cast, the Tammany tympanum, thick as it is, is apt to experience some vigorous throbbing. McEneaney doubtless overlooked the fact in his desire to reach "them fellers."

It is quite likely that the measure will be so amended as to restrict the quantity of gasolene that may be used or carried, the limit being fixed so as to avoid or mitigate the wrath of the Tammany plumber or painter and yet interfere with the automobil-

ist and motocyclist. Under the provisions of the Doughty law such an ordinance would seem clearly unconstitutional, but the attempt should be watched and, if possible, averted. If nipped in the bud, the arrests, litigation and "test cases" that must follow the passage of such a law will be avoided. New York cannot afford to be made ridiculous in the eyes of the world by McEneaneys, nor can the interests at stake afford not to attempt nipping his bungled scheme.

The animus of the ordinance is apparent. There are fluids more volatile than gasolene and others only slightly less volatile. But the astute McEneaney singles out only "the compound known as gasolene."

The Men who are Wanted.

I plead for men of sterling worth,
For business methods pure and clean,
For honesty throughout the earth,
For fairest dealing though unseen.
For weights and measures quite exact,
For plan and purpose unobscured,
For statements one will not retract,
For noble triumphs thus secured.

I plead for men who think and act,
Whose plans in life touch high ideals,
Whose judgments rest on solid fact—
Are not reversed by base appeals.

I plead for men though young in years
To watch the rising star of hope;
To struggle on through doubts and fears,
Quite soon a brighter day will ope.

I plead for men who dare and do,
Who shirk no toil that duty gives,
Who ever to the Truth are true,
And in whose hearts the Truth still lives.

The world needs men to till the soil,
To sow the seed, to scatter grain,
To reap rich harvests from their toil,
To plough and plant and reap again.

The world needs men to build highways
Across its plains and o'er its hills;
Who count by deeds and not by days
The place in life their being fills.

The world needs men upright and just,
Who will their faith nor hope deny;
Who in their Maker put their trust,
And for His truth will gladly die.

W. R. WALKEY.

It is well enough to make a sale. It is better to so make the sale that the same man will buy twice. The observation applies at home. It applies with redoubled force abroad. All engaged in export trade should keep the fact constantly before them.

McNEANEY'S FOOL MEASURE

Scents a Good Thing in Gasolene and Suddenly Resurrects his "Strike."

After slumbering peacefully in the City Hall or in an aldermanic pocket, on Friday last Alderman McEneaney suddenly pulled his "strike" at gasolene on the unsuspecting New York public. Only a few hours notice were given that a hearing would occur on that day.

The ordinance itself is as follows:

On and after Jan. 1, 1901, no individual shall ignite, use, operate or have in his or her possession any of the compound known as gasolene in any house, building, store, dwelling, residence, street, avenue or highway in the city of New York, under a penalty of \$25 for each and every offense.

The hearing attracted but a small crowd, those present being mainly newspaper men, who appreciated that the measure was a strike at the automobile interests and who anticipated that the "heavy artillery" of the Automobile Club of America would be brought to bear on it. As a matter of fact, that organization was unrepresented, the only speaker against the law being Charles McLaughlin, a publisher, who is also an automobilist. He questioned the legality of the ordinance, and pointed out that it would not only affect the automobile but the printing, plumbing, clothing and practically all other trades.

Senator Foley, a Tammany product, espoused the proposed law. He thundered against the use of "liquid destruction," as he termed gasolene, and with tears in his nose declaimed that its benefits were not worth a single life for which it might be responsible.

John A. Secor was, however, the prize speaker. He was fortified with a mass of newspaper clippings of accidents alleged to be due to gasolene. He talked of his wide experience and investigations, and urged that licensed engineers only be permitted to employ it.

When the hearing was declared adjourned Secor went to the committeemen's desk and volunteered to address the whole city council or to prepare a paper for their edification. Several newspaper men, including two *Bicycling World* representatives, were also at the desk, and a warm discussion ensued all around.

It then came out that Secor was an inventor who believes that he has found a new method of propulsion which does not involve the use of gasolene. He was asked whether this was responsible for his attitude. He retorted that it was not right to impugn his or the alderman's motives when the "public welfare" was at stake, whereat the aldermanic chests swelled. The aldermen were asked what would become of automobiles and motorcycles if their ordinance became law. They didn't know and apparently didn't care. But Secor helped them out by suggesting that coal or electricity might be used. The aldermen were also asked if any-

one had been notified of the hearing. There was silence for a moment, and then one of them blurted out unwittingly:

"We notified the Standard Oil Co."

It is generally understood that when an alderman scents "a good thing" he drafts a law aimed at wealthy interests and then "notifies" them of the fact. If the interests affected "get wise," in Tammany parlance, they "see" the aldermen and no more is heard of the law. In this instance it is evident that the notification failed of its purpose.

While there is scarcely a shadow of doubt that the ordinance is illegal its passage would entail a deal of trouble in many directions. It would not only hurt the interests of motorcycles, but would prevent the use of gasolene in the repair of tires and many other goods.

Its passage is doubtful, although the committee is undoubtedly a unit in its favor. According to the chairman, it is possible that the measure will be modified and another hearing may be held.

another hearing may be held.

When They Carried Time.

One fad that has passed away and almost been forgotten is the carrying of watches—or even small clocks—on bicycles. It seems a little curious now to recall that the practice was ever indulged in to any extent, but such is the fact.

In the early nineties there was scarcely a dealer who did not carry a stock of these timepieces. They were made especially for bicycles, and were sold for about \$2 or \$3, complete with the fastening. In the case of clocks the latter consisted of a leather holder, in which the clock was placed, while a strap and buckle made it secure. They were placed on the top frame tube, just back of the handle bar stem. The watches were usually accompanied by a metal case, and this was attached to the handle bar by means of clips.

Equipped with these timepieces, riders could tell the time without having to haul out a watch, and many of them got into the habit of leaving valuable timers at home. The substitutes kept fairly good time and were not particularly liable to get out of order. Yet at the prices mentioned there was a fair profit for the dealer, while at least one watchmaker found it worth while to devote his entire time to this branch of the business.

Crippled, but a Cyclist.

On a ferryboat bound Jerseyward on Sunday last the *Bicycling World* man noticed a tricycle, pedal driven and with pneumatic tires, standing among a score or more of bicycles. Fastened to the frame was a pair of full-length crutches, and leaning against a post near by was an elderly man, evidently the owner of the machine. With the help of his tricycle he was evidently good for many pleasurable outings, in spite of his infirmity.

During the month of May 25,810 bicycles entered Fairmount Park, Philadelphia.

CENTURY FOR MOTOCYCLES

It Develops Enlivening Trade Rivalry—How the Machines Behaved and Finished.

As showing the possibilities of the future the New York Journal's century run on Long Island on Saturday last was full of trade interest. The event suggested the "good old days" when the trade took a keen interest in road races, parades, League meets, century runs and the like, and when rival makers were intent on making formidable showings in such affairs.

In this instance it was the motorcycle manufacturers who supplied the interest. The promoters of the run, which comprised nearly 1,000 riders, divided into separate divisions, gave motorcycles a chance by planning a "motorcycle division." All makers of such machines were notified, and up to the time of starting it was thought that all would be represented and that forty or fifty motorcycles would be in line. When the time came, however, the rivalry simmered down to the Thomas and the Orient interests. It was keen rivalry, too. E. L. Ferguson, E. J. Edmond and G. W. Sherman came down from the Thomas factory at Buffalo to take part, while L. J. Sackett came from Waltham with an Orient quadricycle and was reinforced by the forces of the Orient's metropolitan agency, viz., L. D. Atkinson, R. Ross, D. R. Rice and G. F. Lowe; all except Sackett and Rice rode motor bicycles. The Thomas squad, in addition to those named, comprised E. R. Bailey, of Albany, and G. M. Fisher, A. Marthens and H. P. Macreary of this city, seven in all, each mounted on an Auto-Bi.

It was expected that there would be a rare dust-up between the rival interests, but expectations were disappointed. The Thomas party started at noon, the Orients following a half hour later; the latter elected to remain together throughout, the front seat of one of the quads being piled high with spare parts, belts, tires and repair tools. In addition F. Schede and wife, on an odd-appearing tricycle of his own make, and fitted with a De Dion motor, also started. Mrs. Schede was merely a passenger, reclining in a seat affixed to the rear of the machine.

Clouds and intermittent rain marked the day. The dampness played hob with the leather belts on the Orients and was the cause of nine-tenths of the trouble.

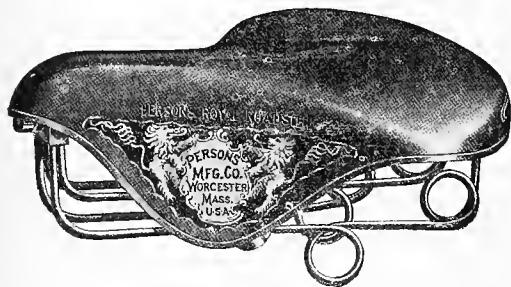
A special route had been laid out for the motorcycle division, and as a result Schede and Fisher were the only riders who did not lose their way. As a result the two were the first to finish; Ferguson, on an Auto-Bi, who went seventeen miles out of the way, finished third at 7:20 p. m., rushing the last 58 miles (including one stop) in 2h. 50m. The others, Macreary excepted, trailed in singly, the Orient party finishing after 9 p. m. Macreary became so hopelessly lost that he cut the course and "chucked it."

In addition to those mentioned, Emil Hafelfinger, on a Royal motor bicycle, also started and finished. He, however, decided that more good could be accomplished by showing the pedal pushers what a motor bicycle could do, and therefore rode with one of the early divisions. Except for a broken pedal, due to a fall in dodging a carriage, he went through in good shape and on less than seven pints of gasolene.

NOW'S THE TIME

to push the sale of the

PERSONS SADDLE



(The saddle par excellence for coaster-brake bicycles, motocycles and for heavy riders.)

Riders are just about learning that the cheap-and-nastys, the just-as-goods and the other doubtful saddles are less than skin deep in quality, comfort and endurance.

They are in the humor when thoroughly high-grade saddles like the Persons will appeal to them with special force and thus make sales easy.



If You Have Never Tried

showing and selling Persons saddles at this season of the year, it's worth the effort. The good results have surprised others; and what others have done you should be able to do.

If you are not up on prices, write us.

PERSONS MFG. CO.

CHAS. A. PERSONS, Pres't.

WORCESTER, MASS.

The Retail Record.

EMBARASSMENTS.

Brockton, Mass.—W. H. Marble, High street, assigned.

Lawrence, Mass.—Fred Knobloch, creditors' petition filed.

FIRES.

Montgomery, Ala.—J. Todd.

Fennville, Mich.—A. M. Hulsen.

Fennville, Mich.—L. S. Dickinson.

Lynn, Mass.—Charles Stackpole, total loss.

Lynn, Mass.—H. J. Pote & Co., total loss.

Lynn, Mass.—Whitten & Pollard, total loss.

Niagara Falls, N. Y.—Julius Weaver, slight damage.

Rochester, N. Y.—Simon Goss, No. 143 Chatham street, slight loss.

CHANGES.

Fort Wayne, Ind.—Himes & Rosenwinkle, dissolved, Rosenwinkle has made an assignment.

Little Falls, N. Y.—J. H. & B. P. Casler, No. 549 Main street, closing out bicycle business.

Clinton, Ia.—George Riggs succeeds H. L. Traub, Main street.

Rensselaer, Ind.—Rhodes & Overton, Mr. Overton sold his interest to Mr. Rhodes.

Garwin, Ia.—G. E. Clark, of Clark Bros., has sold out one-half his interest.

Gray, Ia.—Emerson Shelley succeeds T. S. Wilson.

Tacoma, Wash.—Reaney & White will discontinue.

Chéhalis, Wash.—DeWitt Welton succeeds Wallace Taylor.

Wichita, Kan.—Musselman Bros. & Co., sold out.

Sanborn, Minn.—Piny & Whelan succeed Posz & Gleason.

Paris, Tex.—M. F. Allen Hardware Co. succeeds Allen-Willis Hardware Co.

Right to Maintain Prices Upheld.

In the case of Elliman, Sons & Co., makers of a well-known embrocation, against Carrington & Son, Ltd., the English courts have again upheld the right of a maker to insist that the price of his goods shall not be cut.

In the case in question the defendants alleged that agreements requiring the maintenance of price are in restraint of trade, and could not, therefore, be enforced. Mr. Justice Kekewich, however, pointed out that Messrs. Ellimans were not bound to sell their embrocation at all, and if they did they were at liberty to fix their own prices in the first instance, and to enter into any other bargain requiring that buyers should not sell below a certain figure.

Wants Pay for Fingers.

Christian Nelson, a minor, of Milwaukee, Wis., has filed suit, through a guardian, to recover \$15,000 damages from the American Bicycle Co. The lad was employed in the company's factory, in North Milwaukee. He was ordered to operate a steam press, and his hand became entangled in the machinery and he lost three fingers.

Elfin
Bicycles.

Boom Elfin's for Vacation.

This is the time of year —when the little folks will have plenty of outdoor open time on their hands—that the enthusiastic and jubilant bicycle dealer will make his strongest play for the Juvenile trade with the

World's Best--- The Elfin.

For the child's delight, the father's peace of mind, and the mother's satisfaction nothing on wheels was ever invented quite equal to the Elfin Bicycle with its peculiar features.

Sell the Elfin during vacation. Descriptive catalog free.

Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.

WRENCHES HIS PRIDE

The Useful Little Things That Called Forth a Burst of Praise.

"Just as a badly constructed and designed wrench is a delusion and a snare, so a 'tried and true' one is a blessing difficult to estimate at its true value," remarked an old rider to the attentive *Bicycling World* man.

"I don't mind admitting that I pride myself somewhat on being a connoisseur in the matter of wrenches," he went on. "I have quite a collection of them, and always carry one with me. I do this as a matter of principle. I find that I may carry a wrench for ninety-nine days and never have any use for it, but if I leave it home on the hundredth day it is a certainty that I shall need it very badly. The result is that I am rarely without a wrench, whether I am in my riding togs or not.

"This being so, I ought to know something about wrenches—from the user's standpoint anyway. There's individuality in wrenches, too, and one gets used to them and acquires an affection for certain ones.

"There's an old English wrench, for example, that I have had for years, since the early nineties, in fact. That wrench has the place of honor in my collection. It always reposes in the hip pocket of my bicycle suit, and it has done rare good work in its time. It is all chance, too, that this particular wrench should have fallen into this place. It is of English manufacture, but that is all there is English about it.

"It was this way. In the days when we all, or nearly all, rode English wheels their 'spanners' were the cause of a lot of fun with us. Choice collections they usually formed, massive, of course, and admirably fitted for use in a machine shop. But to carry them around in a tool bag or one's pocket was an entirely different matter. Consequently we demanded adjustable wrenches with English wheels, and we got them. The simplest way was for the importers to chuck the spanners overboard and buy American wrenches in place of them, and this was usually done.

"The Billings & Spencer wrench was then almost the only good one on the market, and there was one style in particular that was very good. Now, an English maker conceived the bright idea—or, more likely, it was suggested to him by his importer in this country—to copy this wrench. This he did, lock, stock and barrel. He dubbed it the 'Yankee wrench,' and shipped it to this country with his machines. Premiers the latter were, and good of their kind, too.

"Well, that is my favorite wrench. I have owned more than one B. & S. wrench, exactly like this one, but they got lost somehow or other, and this one was left. This may have been because it was not nickelled, as were the originals, and therefore not as in-

viting. Anyhow, it remained in my possession while the others vanished. I will say, too, that it is just as good as the original, which is not altogether surprising when it is remembered that it is an exact steal, down to the slightest detail. It was really one of the greatest compliments Billings & Spencer could have paid to them.

"Now, here's another wrench I like," taking it out of his pocket as he spoke. "It's one of those little Mossburg wrenches, and being so light, neat and beautifully finished, I carry it with me in my ordinary clothes. It is surprising, too, how often I find use for it, even when there is not a bicycle near.

"There are several other wrenches in my collection, but these two are the ones I prize the most. I would be almost inconsolable if I should lose either of them."



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

Another Invasion Due.

One of the most wonderful emanations from the school of yellow journalism—a figment of that fecund imagination born of a ceaseless hunt for "beats"—is the story that the arrival of foreign racing men on these shores presages an invasion of foreign bicycles.

Some imaginative scribbler started the yarn, and it has found ready credence in some quarters. The racing men, it is gravely declared, are sent here with racing machines of foreign—mostly British—make. They are to win numerous and surprising victories, to account for which there can only be one explanation, to wit, the superiority of their mounts. Thereupon the countless thousands of such machines, ready crated and waiting but the signal, are to be launched forth on these devoted shores. On arrival here they will, of course, sell like hot cakes, to the detriment of home goods.

To the concocter of this tale such trifles as 45 per cent duty, lower prices in this country than abroad, the lateness of the season, etc., count as nothing.

CARE OF TOOLS

Lack of It Often Responsible for Lost Time and Items of Expense.

A great deal is said about improved tools. They are fully described and illustrated as they come along, but the place where they are kept when not in use, "the toolroom," is generally, like the grindstone, in the darkest and dirtiest corner of the shop.

There should be plenty of light in the toolroom—daylight, if possible, but artificial light is all right if the lights are properly placed and there are enough of them. Then the tools should be so placed that they can be got at quickly, and a good tool keeper does not like to see a crowd of men waiting and the owners probably feel about the same.

There should be plenty of tools to supply the demand at all times, as the cost of the tools will not equal the value of the time that may be wasted in looking and trying to borrow from another man. Reference is made to small tools, such as drills, taps, reamers, etc. A man can waste enough time in looking for a drill or a tap to pay for it in a short time. Much time can be saved by grouping all tools for doing a certain piece of work in a block. For instance, you can put a reamer, drill, reamer wrench and a standard plug in a block, and the workman gets the four tools on one check, and you can do the same for a hole that is to be tapped. Then the tool keeper ought to be a person that is willing to hurry when there are men waiting. He can always get time to rest when the rush is over.

As it is not always possible to examine tools for sharpness at the time they are turned in, it is important that the tool keeper should look them over the first spare time he has, and if they are not all right have them made so, as the tools ought to be all right for the workman to use when he gets them out. Much time is wasted by workmen when they get a dull tool, in grinding it themselves or in waiting for the man that runs the grinder to do it for them. Some people think that any person is all right to care for tools, but this is not so, as an intelligent tool keeper, one who takes an interest in his work, can save his own wages for the firm every day. The above considerations have helped in the care of ordinary tools, such as every toolroom has or ought to have.

When the Tire Cracks.

Riders are sometimes troubled with tires that develop cracks on the tread and sides. This goes on until the fabric is laid bare under these cracks and the moisture gets at it and causes it to rot. To fit such cases an Englishman has brought out a preparation to stop the deterioration that thus sets in. The preparation is painted on the sides of the tire right up to the tread by means of a brush, and it requires some forty-eight hours to dry perfectly.

RACING

Lack of accommodation for the spectators, who overflowed the field and encroached on the track, was responsible for an ugly spill at Vailsburg, N. J., on June 16. The accident came just as the 5-mile professional handicap was nearing a close, and it marred a day of racing exceptionally fine even for this track. One of the leaders fell, and over him sprawled nearly a dozen men who were unable to get by. Of the half dozen fortunate ones, Cooper, McFarland and Ross accounted for the places in that order. Cooper showed a glimpse of his old form, winning by inches almost on the tape. The time, 10.50, was within a few seconds of record, and would probably have beaten it but for the accident. Kramer won the half mile, his great rival, McFarland, being shut out in the semi-finals. Ross gave a rare exhibition of pace-following, riding an exhibition 5 miles in 7.51 3-5, beating the track record of 8.35, made by Michael. One mile was covered inside of 1.25.

If negotiations now pending are successful a powerful combination will be formed whereby prominent racing men will be under agreement to ride at certain tracks. The baseball associations and schedules are given as the model for this combination, but it is really more on the vaudeville-circus idea. Tracks at New York (Madison Square Garden), Boston, Providence, Philadelphia and Pittsburgh are behind the scheme. Under it such men as Nelson, McFarland, Stinson, Linton, Walthour, Michael and Champion, it is claimed, will agree to ride only at these tracks unless permission is given to compete elsewhere. In return for this they will be guaranteed a certain number of races during the season, and a sum approximating 5 per cent. of the gross receipts will be set aside. At the close of the season this will be divided among the men, the basis of distribution being the number of places each man has won. As yet, however, the negotiations have not been concluded.

It was an illustrious trio that faced the starter at Charles River Park, Boston, on historic June 17, Bunker Hill Day. Stinson, Nelson and Michael started on a 30-mile journey, motor paced, and the Cambridge record holder crossed the tape in the lead at the finish after a determined struggle. By placing the two-mile world's record to his credit Nelson obtained some consolation for his defeat. There was no balm for Michael, however, he finishing over two miles behind the leader. A nasty fall that Nelson got contributed to his defeat, as he lost nearly a mile thereby. Matters were nearly evened when Stinson punctured and lost nearly all of his advantage. Nelson fought hard to close the gap, riding the twentieth mile in 1.27 2-5, 3 seconds within the track record, but could not quite manage it. Stinson's time was 48.50 4-5. Freeman, Fisher and McFarland

were the winners in the 5-mile professional handicap in that order.

Accidents by the wholesale marked the one-hour motor paced race held at Revere Beach, Boston, on June 17—Patriots' or Bunker Hill Day. It was a three-cornered affair, Walthour, Moran and Nat. Butler being the contestants. Walthour and Moran ran on even terms to the eleventh mile, when the latter lost his pace and fell back two laps. Then his motor went wrong, and he lost three more laps. Then Walthour's tandem became disabled and he tacked on to Butler's, the latter having by this time retired. In the last mile Walthour's tire punctured, and he was obliged to ride with it in that condition. Moran came up fast and got within a few lengths, when the pistol fire announced the end of the hour. Walthour covered 36 718 miles. Elkes rode an exhibition 5 miles; time, 8.11.

After Nelson's performance at Providence, R. I., on June 12, there can be no doubt that the Swede has both stamina and pluck. He defeated Stinson by half a mile in a 25-mile motor paced race, in 38 29 1-5. On the preceding nights he had beaten Linton and Champion at Boston and Worcester, respectively. The Providence race was of the sensational order, each man starting out to kill off his opponent. Records went by the board at the start, but the pace was too hot to be maintained, and Father Time regained his lead toward the end. Stinson had the worst of it in the matter of luck. His pacing machine went wrong at the sixth mile, and he was compelled to ride unpaced for a lap.

After failing in his efforts to arrange a series of match races between Jacquelin and Elkes, it is now said that W. A. Brady has been more successful in inducing the Frenchman to come to this country for open races. His appearance is set down for the latter part of July, and he will remain during the balance of the season, opening at Manhattan Beach. It is further asserted that to the opening of these negotiations was due the failure of the efforts to arrange a third series of races between Taylor and Jacquelin.

In one of Marshall & Ball's windows at Newark, N. J., is displayed the "purse" which McFarland and Ross are to battle for on June 22. It is a sign nine feet high and six feet wide, \$600 in \$1 and \$5 bills being used to make the following lettering: "All to go to Winner, Ross-McFarland race, Vailsburg track, Saturday, June 22." The "purse" is to be taken to the track and presented to the winner. If "Midget" Ross should win he will have troubles of his own in carrying it off.

Manager Brady of the Manhattan Beach track is not worrying about this combination apparently. He is figuring on making a hit with open motor paced races, sufficient starters being secured to insure their being successes, no matter what befalls individual riders. He claims to have secured Elkes and

Michael exclusively for his track, Nelson for three races and Michael, Pierce, Walthour, McEachern and others for his opening meet on June 22.

More than four seconds were clipped from the one-mile motorcycle record at the new board track at Troy, N. Y., last week. After the programme of races on the night of June 12 had been finished, Stone and Judge on a motor tandem went out and rode an exhibition mile in 1.22¾. Chief among the regular events was a five-mile motor tandem race, run in heats. Stone and Judge won in two straight heats. Time, 8.14 and 8.07½ respectively.

Hardy Downing signalized his entry into the middle distance paced game at Worcester, Mass., on June 14, by defeating Tom Butler handily. The distance was 15 miles, the time 25 13 3-5. At the sixth mile Downing wrested the lead from Butler, and thereafter was never headed, lapping his opponent at the eleventh, and again at the fifteenth mile. Joseph Fulton, of Brooklyn, won a five-mile lap race in 11.44.

A stubbornly contested, well ridden race, replete with exciting features, delighted Springfield, Mass., people on June 13. Cadwell of Hartford and Perry of Chicopee were the contestants, and the former won by a little over a lap. The men passed and re-passed each other throughout the race, and it was in doubt until near the end, when Cadwell forged to the front. The time was 35.42 3-5.

The famous dictum that beer and music don't mix is now passé, and the two go hand in hand. At Buffalo, N. Y., they are trying the experiment of mixing cycle racing and wrestling. Contests on the mat alternate with dashes around the track at the night meets at the Buffalo Athletic Field, the managers evidently knowing more about the former sport than about cycling.

In the face of a steady downfall of rain at Philadelphia on June 15, it was found necessary to call off the Linton-Champion motor paced race at Woodside Park. The final decision was not made until almost the last minute. No other date being available, the race cannot be run now, although efforts will be made to do so later in the season.

Dark clouds presaged the heavy shower that finally put an end to the racing at Baltimore on June 13. The heats and final of the amateur mile handicap had been run, but everything else had to be called off. A 20-mile motor paced race between Linton and Champion was the principal event scheduled.

Rain that lasted until just about the time for calling the first race caused a postponement of the Atlanta Wheelmen's meet scheduled for June 15th at Vailsburg, N. J. It will be run on June 22, weather permitting. The 20-mile motor paced race between Rooss and McFarland is the feature.

FACTS FROM FERGUSON

What Motorcycle Makers are Encountering— Instances of Ignorance that Exists.

Looking none the worse for two century runs on a motor bicycle in two successive days, E. L. Ferguson, of the E. R. Thomas Motor Co., was about New York on Monday last. He was bubbling over with enthusiasm and increased confidence in the Thomas Auto-Bi, begot of its performances in the big century run on Saturday. As usual, too, he was full of practical information on the motorcycle subject.

"The demand has slackened somewhat with the advance of the season," he said, in reply to the query, "but the interest is still keen and widespread and we have lots to do."

He was asked if price interfered much with the volume of sales.

"Not at all," he said promptly. "The great trouble is that motorcycle makers cannot sell brains with their bicycles. If it were possible we could sell three times as many as we could make at the \$200 price.

"The chief obstacle is the fear of the public that motor bicycles are dangerous and complicated, coupled with the inability of the average dealer to understand and properly care for them," continued Mr. Ferguson. "The dealer does everything to help along the hesitation of the public. If anything goes wrong that he is unable to locate, he swears at the machine and then talks so much about it that everyone in town knows it. It doesn't seem to me the same spirit pervades the dealer that obtained in the early days of the pneumatic tire. Then the old 'rag' tires in use were almost as much of a mystery as the motor is to-day. But the dealer did not find it necessary to advertise the fact that he was unable to repair it. If he swore he swore in secret, but he stayed in the shop until midnight if it was necessary to prove to his customer that the tire could be fixed. I know. I did it myself."

Then Ferguson waxed almost eloquent in detailing some of the worriments that beset the motorcycle pioneers.

"There is a man down here who has two of our machines. One of them worked like a charm. The other he declared no man living could make work. I dropped in his store the other day. He was out when I called, but I went at the machine. It didn't take me long to find that he had left in his plug and weakened the battery. I fixed the firing cam so that the trembler would 'hang' when breaking contact—it's the breaking away, not the action of contact, that make the spark—and when the man returned his motor was working as well as anyone could wish.

"There was another case of the same sort up in New York State," went on Ferguson, warming to his talk. "The dealer swore by all that was holy that nothing on earth could make his machine work. He had had it apart, he had had the two electricians in his

town go over the machine, and, despite their best efforts, they could do nothing. He damned the bicycle—damned us—declared the motor was no good, and all that sort of thing. Finally we sent a man from the factory to investigate the case, and what do you suppose he found? The wise electricians had not packed the batteries tightly; when the machine was moved they jostled in their case; the result was a short circuit, and of course the motor would not work.

"It did not take long to fix it. But will you believe me"—and Ferguson said it with unfeigned disgust—"twenty minutes after our man left that bicycle went wrong again and was again thoroughly damned. Why? From exactly the same cause as before. The owner wanted to see what we had done to it. He opened the battery case, removed the corrugated paper that we use as packing and threw it away. Then he closed the case, pinched and dented it in doing so; the result was more jolting of the battery and another short circuit. It is this sort of thing that the man making motorcycles encounters. To-day, when everything is right, the rider would not part with his machine for \$500; to-morrow, because of such simple troubles as I have recited, he would sell it for \$50. Too many people don't even try to understand the machine. In time the education will be accomplished; but dealers ought to devote a little more study to the subject for their own self interest. It will be well repaid.

"There is no question of the future of the motor bicycle. It is a glorious invention, and, once thoroughly understood, there is nothing in the form of a bicycle half so delightful."

Where Ignorance is Bliss.

That it is not always safe to reckon on the ignorance of your competitor is a truism that is sometimes made plain in unexpected ways. An illustration was afforded recently by an occurrence that came under the notice of the *Bicycling World* man.

In a conversation with one tradesman the latter cited as an example of the success of his particular make of motorcycle the fact that one of their most satisfied customers was a rider who had bought one of their machines after first being the possessor of a rival make. It was not alleged that he was dissatisfied with the latter. That might or might not be, but the fact remained that he preferred the make represented by the tradesman referred to.

It happened that the very next day another tradesman dropped in, and he also chatted about motorcycle matters. Quite naturally, apparently, tradesman No. 2 alluded to the fact that there was a certain rider who was the proud owner of two motorcycles, one of their own and the other of a rival make. But, said the speaker, he prefers ours, and is going to ride it on a motorcycle run scheduled to take place shortly.

The remark was made in a casual way, and as far as indications went there was no effort to score a point or to "crow" over the rival. Nor was there any sign of a knowledge that the first chapter in the case was known to the auditor.

BETTERING THE BATTERIES

Here's a German-American Article that Appears of Great Promise.

Failure of the ignition device is responsible for 87 per cent. of his troubles, declares a well known motorcycle manufacturer.

Of this percentage a very large proportion is attributable to poor batteries. A cheap battery is a delusion and a snare, as is learned sooner or later. Even the best leave much to be desired. The spark produced from them is deficient in amperage or voltage, is unreliable, soon becomes weak or is afflicted with some other shortcoming. In such case it is worse than useless.

A German inventor first diagnosed the standard form of cell, located its weaknesses and resolved to eradicate them. He did more than this. He changed the weak points into strong ones, then proceeded to demonstrate their worth.

This he did satisfactorily, and to-day the "Hydra" battery is known throughout Europe and recognized as marking an epoch. The patent rights for it for North America have been acquired by the Hydra Double Battery Co., 32 Broadway, New York, which was organized for the purpose of exploiting it. The concern is abundantly able to carry out its plans, which include the manufacture and marketing of the batteries, and already work has progressed so far as to turn out the first cells.

In the Hydra cell the carbon, instead of being in a flat piece, is made in the form of a cylinder. This is filled with water, sealed, and forms the center of the cell, as usual. The patented composition placed around this carbon cylinder is perfectly dry, thus preventing it from deteriorating rapidly when not in use, and this in turn is surrounded by zinc, as usual. In addition a zinc is placed in the carbon cylinder.

When the cell is called upon to produce sparks a certain quantity of the water in the carbon is drawn through the cylinder and mingles with the enclosing composition. This passage takes place only as needed. Thus, if the cell is not used, the water will remain in the carbon, the composition will be kept dry, and the cell will be just as good at the end of a year as the day it was made. If, on the contrary, it is used constantly, the water will be drawn from the carbon much more rapidly, sufficiently so to keep the composition in the proper state of moisture.

The presence of the zinc inside of the carbon, as well as on the outside of the cylinder, of course enhances the strength and power of the cell. The result is a much more effective battery than could be obtained in the ordinary way.

The Hydra battery will be used for a multitude of articles, in addition to motorcycles. For the latter, however, a special form of cell will be made. It will be small, powerful and lasting. Whether used constantly, on long runs, or at infrequent intervals, it will retain its maximum powers and at all times give a strong and long sustained spark.

The Week's Patents.

675,886. Means for Cooling Pistons and Piston Rods of Gas or Other Motors. Hermann E. Ebbs, Nuremberg, Germany, assignor to the firm of Vereinigte Maschinenfabrik Augsburg und Maschinenbaugesellschaft Nurnberg Actien-Gesellschaft, same place. Filed Dec. 20, 1899. Serial No. 740,965. (No model.)

Claim.—I. A piston for combustion engines comprising a hollow piston rod having a fluid inlet and a fluid outlet and a piston head in liquid communication with the hollow piston rod and chambered for the reception of cooling fluid, the said chamber being formed by continuous ribs in two sets, one set of ribs intermeshing with the other set of ribs so as to cause the fluid to flow in the piston head in a serpentine path.

675,913. Sectional Tire. George W. White, Huntsville, Ala. Filed Dec. 6, 1899. Serial No. 739,423. (No model.)

Claim.—I. As a new article of manufacture, the inner closure or receiver for pneumatic tires, having a series of inflatable compartments having, themselves, air-inlet valved tubes housed in an outer tube, substantially as set forth.

675,927. Bicycle Handle. John K. Boehm and Charles R. Waldron, Ceylon, Ohio. Filed March 6, 1901. Serial No. 50,098. (No model.)

Claim.—I. A handle bar comprising a stem having a head, a rack bar slidably disposed in the head, handle bar sections pivoted in the head and having gears engaged with the rack bar, and means for holding said rack bar yieldably against movement under the influence of downward movement of the free ends of the handle bar sections.

675,990. Stop Valve for Pneumatic Tires or the Like. Luigi Way, Turin, Italy. Filed July 6, 1900. Serial No. 22,677. (No model.)

Claim.—A valve for pneumatic tires, consisting of a tubular body having a worm groove therein, a helical spring having an enlarged portion engaging with said groove, a ball valve resting on said spring, and a coupling piece forming a chamber for the valve.

676,003. Bicycle. Lazarus S. Kallajian, Boston, Mass. Filed Dec. 22, 1900. Serial No. 40,713. (No model.)

Claim.—I. In a bicycle, a frame having a reversible front head adapted to receive the front fork from either direction, said frame having two rear forks, and a detachable crank hanger adapted to be attached to either fork, whereby the bicycle may be converted into either a gentleman's or lady's bicycle.

Claim.—In combination with the fixed wheel and the free wheels and on the shaft, the friction disks attached to the wheels, the collars free on the shaft and the collars adjustably fixed thereon, both having coned surfaces forming ball races for balls, and the sliding sleeves having their internal surfaces partly coned in order to force the balls between such fixed and free collars and displace the latter axially so that one or other of the wheels is placed in frictional gear with the wheel or both wheels may be put out of gear therewith, as described.

676,051. Driving Mechanism for Velocipedes. Boyd Sinclair, Waterloo, England. Filed Aug. 15, 1900. Serial No. 26,973. (No model.)

676,021. Bicycle Saddle Support. Alfred R. Anthony and Calvin T. Cunnius, Wilkes-Barre, Pa., and James A. Watson, Washing-

ton, D. C.; said Watson assignor to said Anthony and Cunnius. Filed Dec. 16, 1898. Serial No. 699,476. (No model.)

Claim.—In a bicycle-saddle support, the combination with the seatpost of the bicycle, of two pairs of links pivotally supported upon and depending from said seatpost, said links being arranged to swing in vertical planes lengthwise of the bicycle frame, a bridge piece having its lower extremities pivotally connected to the lower ends of said links, said bridge piece extending over the said seatpost, and a second seatpost supported upon said bridge piece above the first-named seatpost.

676,040. Power-Transmission Gear. Ralph Jackson, Altringham, England. Filed June 4, 1900. Serial No. 19,030. (No model.)

Claim.—A crank hanger or bracket comprising the attaching portions, the bars radiating from each end of the axle to connect with said attaching portions, and the connecting part extending between the outer ends of the said radiating bars, the said bars arranged in pairs presenting a series of forks connected by the part, substantially as described.

676,062. Valve. Rudolph Bratka, Minnesota Lake, Minn. Filed Aug. 30, 1900. Serial No. 28,528. (No model.)

Claim.—In a device of the character described, the combination with a hollow tube, of a removable casing therein having an inlet and an outlet opening, of a spring-pressed valve within the casing, a depending valve rod secured to the valve and a stop on the lower end of said rod to limit the movement of the valve.

676,099. Electric Igniter for Explosive Engines. John V. Rice, jr., Edgewater Park, N. J., assignor to the John V. Rice, Jr., Co., same place. Filed Aug. 18, 1897. Renewed Nov. 3, 1900. Serial No. 35,390. (No model.)

Claim.—I. In a gas or explosive engine, the combination with the cylinder, the piston, and the explosion chamber, of the fixed and the reciprocating electrodes, one of which is rounded and horizontally rotative to prevent wear by friction, and the other of which has a spring contact finger that is adapted to bear against the rotative electrode when contact is made, substantially as described.

676,247. Starting Device for Explosive Engines. Zebulon S. Taylor, New York, N. Y. Filed July 19, 1900. Serial No. 24,179. (No model.)

Claim.—I. A starting device for engines, comprising a spring device, a driving connection between the spring device and the engine shaft, a device for locking the said driving connection to the shaft to turn the same, means carried by the engine piston for setting the said spring device against the tension of its spring, and means carried by the said spring device for releasing the said locking device, substantially as set forth.

676,400. Valve for Pneumatic Tires, etc. John A. Spencer, Los Angeles, Cal. Filed July 18, 1900. Serial No. 24,118. (No model.)

Claim.—I. A valvular device for pneumatic tires and other compressed-air retainers, consisting of a valve casing within which are contained a valve stem with a valve at its upper end closing upon a seat at the upper end of said casing, with that part of the valve stem below the valve having wings entering grooves in the corresponding part of said casing, an adjustable nut on the screw thread of the lower end of the valve stem, a spiral spring carried on said stem between said nut and a shoulder on said casing, and a dust cap with pins thereon pro-

jecting upward for engaging with holes in said nut whereby said nut is screwed upward upon the valve stem into or downward out of the interior of the casing, said dust cap also completely closing the valvular device against dirt and dust, said dust cap being constructed so as to contain the valve stem centrally, by the dust cap entering so as to fit closely and screw into the cylindrical recess at the bottom of the casing, with a thread of slower pitch than the pitch of the screw on the valve stem, the whole being attached to the tire, inflation tube, or other receptacle, by being screwed into a sheath so as to be removable and interchangeable, substantially as hereinbefore described.

Pan-American Hint.

The great Pan-American Exposition has realized fully the expectations of the managers, while the great public is more than pleased with the artistic and inventive displays provided.

The creative genius apparent in the architecture of the many buildings is without equal, and the effects obtained through the marvellous color decorations are simply astounding. The landscape work has devolved the grounds into a perfect paradise. The exhibits are a chosen lot and far superior in comparison are they to those of all other expositions.

Buffalo as a city is a most delightful place, and excursions can be made in every direction to localities intensely interesting, but the greatest attraction save the Exposition is Niagara Falls, which is truly one of the marvels of the world. The Boston & Maine Railroad is making every inducement possible for the benefit of the tourist to Buffalo from New England. The rates are the lowest, the routes most numerous, line the most direct and its trains without question the best equipped of any from Boston. The General Passenger Department of the Boston & Maine Railroad, Boston, will upon application send you a Pan-American folder, which is replete in information of service and is yours for the asking. ***

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

The Week's Exports.

Great Britain and her possessions easily distanced all of the other countries in the value of American cycle exports shipped from New York during the week ending June 18. Great Britain herself took close onto \$15,000 worth, the British East Indies and British Australia accounting for the next largest shipments. The record in detail follows:

Antwerp—1 case bicycles, \$40; 17 cases bicycle material, \$310.
British Guiana—11 cases bicycles and material, \$251.
Bremen—3 cases bicycles, \$75; 1 case bicycle material, \$50.
British Australia—69 cases bicycles and parts, \$3,231.
Brussels—3 cases bicycles, \$107.
British East Indies—66 cases bicycles and material, \$5,031.
Bergen—2 cases bicycles, \$118.
British West Indies—31 cases bicycles and material, \$1,186.
Christiania—5 cases bicycles, \$133.
Central America—1 case bicycles, \$15.
Copenhagen—14 cases bicycle material, \$710; 6 cases bicycles, \$315.
Cuba—16 cases bicycle material, \$383.
Dutch Guiana—6 cases bicycle material, \$463.
Drontheim—7 cases bicycles, \$350.
Eshjerg—2 cases bicycle material, \$160.
Florence—2 cases bicycle material, \$7.
Frankfort—5 cases bicycles, \$72.
Gothenburg—2 cases bicycles, \$50.
Genoa—26 cases bicycle material, \$1,222.
Glasgow—14 cases bicycles, \$720.
Hamburg—29 cases bicycles, \$845; 17 cases bicycle material, \$576.
Havre—18 cases bicycles, \$445; 29 cases bicycle material, \$1,404.
Helsingfors—5 cases bicycles, \$438.
Kirkwall—6 cases bicycle material, \$135.
London—33 cases bicycles, \$906; 71 cases bicycle material, \$3,959.

Liverpool—36 cases bicycles, \$975; 34 cases bicycle material, \$1,734.
Leghorn—1 case bicycles, \$50.
Peru—4 cases bicycles, \$167.
Rotterdam—28 cases bicycles, \$656; 28 cases bicycle material, \$1,065.
St. Petersburg—7 cases bicycles, \$443.
Southampton—1 case bicycles, \$30; 55 cases bicycle material, \$6,250.
Schiedam—1 case bicycles, \$25.
Tasmania—1 case bicycle material, \$30.

No Gear Cases for Army Use.

One of the hardest knocks the gear case has received of recent years is the one administered by the British War Office. Gearless cycles are made the standard for army service, and it is not surprising that there should be some criticism of the choice.

If the history of the gear case shows anything, however, it shows that this is the common-sense view of the matter. In the ten years or thereabouts that advocates and makers of gear cases have sought to popularize them there has been ample data supplied on which to base a verdict. In this country it has no show whatever of coming into use, while in Great Britain, where the excessive moisture gives it a better chance than it could possibly secure anywhere else, it is to-day weaker than it was half a decade ago.

It is not at all surprising that this should be so. The gear case is almost perfect in theory, but in practice it is almost unworkable. Certainly for the average rider—for a majority of riders, in fact—this is not putting it too strongly. If anything goes wrong with it—and this happens frequently—it is imperative that it should be attended to at once. This is just what the average rider will not do.

He won't take the trouble to ascertain what is wrong and then set it to rights. Frequently he is not competent to do this, even if he were willing. Consequently the chances are that he would throw a gear case away sooner or later even if he had one.



If you are looking for the best **DRY BATTERY** on the market, buy the **DOW**, and accept no other. For catalogues and price list send to the **DOW PORTABLE ELECTRIC CO.** Offices: 218 Tremont St., Boston, Mass.; 1135 Broadway, New York, N. Y.; Lippincott Bldg., 12th and Filbert Sts., Philadelphia, Pa.; 160 Washington St., Chicago, Ill.

THE OAK.



NEWARK (N. J.) CYCLE SPECIALTY CO., MAKERS.

INDIANA CHAIN.

EASIEST RUNNING.
CONSEQUENTLY BEST.



Send 26 cents for Fob. \$1.80 per dozen, on card.

INDIANA CHAIN CO., INDIANAPOLIS, IND.

THERE'S REAL COMFORT
IN THE REEVES

Ideal Spring Seat Post.

It relieves all jolts and jars, and converts any Bicycle, new or old, into a Cushion Frame. Fits any wheel. Sent prepaid to any address on receipt of \$1.75. Money back after three days' trial if you want it. Send size of present post.
D. E. ORVIS & CO., 71 E. Genesee St. Buffalo, N. Y.
Reference, Buffalo Commercial Bank.

Dealers send for Circular and Wholesale Price List.

FAUBER PERFECTION HANGER.

Unequaled in any of the Points which make a **PERFECT Hanger.**
LIGHT, SIMPLE, DURABLE.

W. H. FAUBER, Manufacturer, CHICAGO, U. S. A.

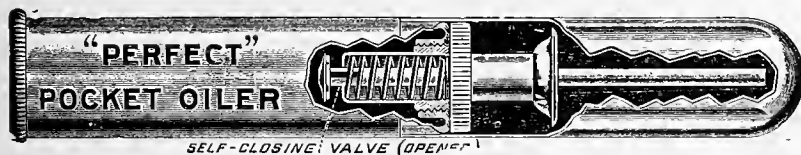
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This is the only fluid that can be legally used in pneumatic tires. Suits now pending.

BUFFALO SPECIALTY MFC. CO.,
Buffalo, N. Y.

"PERFECT" OILER.



25c.

SELF-CLOSING VALVE (OPEN)

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"THEY GAVE THE BEST SATISFACTION OF ANY OILERS WE SOLD."—Keller & Walker Moline, Ill.
"JUST THE THING I HAVE WANTED FOR YEARS."—F. E. Worth, Indianola, Iowa.
"THE ONLY OILER THAT DOES NOT LEAK."—W. D. Anderson, Dallas, Texas.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.

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The
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DOES
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Enameling and Nickeling Co.
ENAMELING, NICKEL-PLATING
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All American wheelmen who desire to keep themselves posted upon matters concerning the cycle in Europe, its trade, mechanics, and sport, should subscribe to

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AND BICYCLING AND TRICYCLING TRADES REVIEW.

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Members of the American Trade visiting England are invited to call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street, Edgware Circus, London, E. C.

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ON
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BOSTON & ALBANY R. R.

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FROM.	CLASS A.	CLASS B.	CLASS C.
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PALMER	16.25	13.30	10.00
SPRINGFIELD	15.65	12.75	9.50
WARE	16.75	13.70	10.40
WINCHENDON	18.00	14.50	10.50
TEMPLETON	18.00	14.40	10.40
ATHOL	16.90	13.70	10.45
WESTFIELD	15.30	12.50	9.20
PITTSFIELD	13.70	11.00	7.75
NORTH ADAMS	14.00	11.25	8.00
CHATHAM	13.10	10.10	6.85

CONDITIONS.

Class A. On sale daily, and good for passage in either direction May 1st to Oct. 25th, final limit Nov. 2d, and in Pullman cars on payment of additional charges for such accommodations.

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Many have made fortunes from simple inventions.

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Boylston St. and Park Square,

On the border of the most famous Public Garden in America. **BOSTON.**

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Via Rockford, Freeport, Dubuque, Independence, Waterloo, Webster City, Fort Dodge, Rockwell City, Denison and Council Bluffs.

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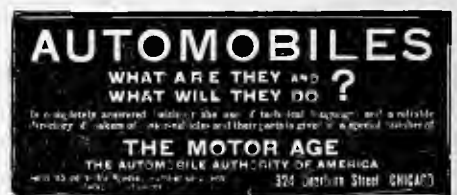
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For tickets and information apply at any principal ticket office of the company.

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BOSTON.



The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., June 27, 1901.

No. 13

SWALLOWS THE SHELBY

Billion Dollar Steel Corporation Acquires Shelby Interests—Increase in Price of Tubing in Sight.

The "something" that was "doing" in the tube trade, of which the Bicycling World last week gave a very broad intimation, has been done. As a result, the Shelby Steel Tube Co. is now a part of the billion dollar United States Steel Corporation. The deal was consummated on Friday.

It cannot be said, however, that the transaction is an entire surprise. Reports that the several interests involved were hobnobbing were in circulation two months ago, and although denied, it was apparent that there was some fire amid the smoke.

While no official information regarding the terms of sale is obtainable, the Bicycling World has it from competent authority that the deal was carried through on a stock basis, no money at all changing hands. By the terms the United States Steel Corporation will give one share of their common stock for five shares of the Shelby common, and one share of United States for two shares of Shelby preferred. At this ratio the Steel Corporation gave three millions for fifteen millions of Shelby common, and three millions of preferred for six millions of Shelby preferred.

Naturally, little or no information regarding the effect of the sale on the Shelby interests is yet obtainable, but it is reported and generally believed that the small tubing department of the National Tube Co., which is already a part of the Steel Corporation, will be consolidated with that of the Shelby Co., and a reorganization of the Shelby Co. follow, which will involve not a few changes of men.

When approached, F. A. Brown, general manager of the Shelby Co.'s sales department, stated that it is too early to announce anything definite. The National and Shelby interests have long been at each other's throats, and the resulting competition will be avoided by the consolidation. In Mr.

Brown's language, "there will be a new level of prices," which means, of course, a higher level.

A rumor is in circulation that there will be opposition to the confirmation of the sale by a minority of the stockholders. The rumor gained circulation largely on account of the arrival in this country of Fred Warwick and Samuel Snell, from England, who are large stockholders in the Shelby Co., having obtained their holdings when the Shelby Co. absorbed the American Weldless Steel Tube Co., of Toledo.

Don Smith's Sudden Death.

Don B. Smith, manager of the Olive Wheel Co., Syracuse, N. Y., died on Wednesday, June 19, at Syracuse, and was buried at Bradford, Pa., his wife's home, on June 22. The news will be a shock to his friends, his illness having been a short one and no fatal termination being apprehended. Mr. Smith was one of the younger men of the trade, and was well liked by all who knew him. He assumed the management of the Olive Wheel Co. upon the retirement of C. A. Benjamin. He also recently became interested in the Helley Motor Co., of Bradford, Pa.

Both Shows Will Continue.

That two English shows will continue to be held—not only this year, but for an indefinite period—is clearly foreshadowed by the quoted remark of President Priest of the Cycle Manufacturers' Association. "You can take it from me," said he, "that so long as shows are held by anybody, so long will the association be certain to continue the National. As a body we do not see the necessity for a show each year; but we certainly think we ourselves ought to have the holding of it in preference to any private concern."

Simply Alters Regal Nameplate.

As a result of the court's order forbidding the Stearns Bicycle Agency to use the name "Stearns" on bicycles finished wholly or partly in orange, the nameplate on the Regal bicycle will hereafter bear the name Bretz Cycle Mfg. Co. In every other respect the bicycle and the design of the nameplate will remain unaltered.

BALL POOL DISSOLVED

The Four Companies Involved Agree to Disagree and Will Resume Their Original Independent Status.

One of the outcomings of the epidemic of concentration that follows the formation of the Trust has fallen apart, or, rather, the parties to it have agreed to disagree and to again go their several ways.

The Central Distributing Co. is the organization involved, and steel balls is the product affected.

The company was formed less than a year ago, and represented a pooling of issues by the Excelsior Machine Co., of Buffalo, the Steel Ball Co., of Chicago, and the Grant Ball Co. and the Ball and Pedal Co., of Cleveland. The product was distributed through the Central Distributing Co., with headquarters at Buffalo.

The formal dissolution was announced this week. The four companies concerned will return to and assume the same independent relations that obtained before the pool was formed.

The dissolution is due to the belief of all concerned that independent action and policy promises better results.

Where we are Weak.

Returns just issued show that during last year the imports of cycles into Switzerland reached a total of 4,080 hundredweights, the value being \$548,000. This is a decline as compared with 1899, when the imports were 4,996 hundredweights, worth \$697,000. The bulk of the imports came from Germany, 2,324 hundredweights. France supplied 874 hundredweights, America 424 hundredweights and England 142 hundredweights.

English Export Trade Improves.

May gave England an unusual gleam of sunshine in the matter of cycle exports. Instead of the customary decline, the month showed an increase over the corresponding month of the previous year. In May, 1900, the exports touched the lowest point ever recorded, £42,524; in May, 1901, it was £52,059.

CALLS THEM "SUCKERS."

Mail-Order "Profesh" so Styles its Customers—Other Brazen Admissions.

Generally speaking, an interest or industry is well reflected by the publications devoted to it. Whether the mail-order business is not more of a game than an industry or legitimate interest is an open question.

Whatever it is, the methods that prevail, as the *Bicycling World* has several times pointed out, are strongly suggestive of those employed in the gold brick and green goods games. Doubtful as it is, however, it is of sufficient importance to have one or more journals devoted to its interests. The *Mail Order Journal* is one of them, and its tone serves to make plainer that in placing the mail-order bicycle in the category of gold bricks and "queer" money the *Bicycling World* was not far wrong. From the utterances of the *Mail Order Journal* it develops that all buyers of mail-order goods are known technically as "suckers," while the mail-order boomers themselves appear to be recognized as "the profesh"—terms that are generally understood as being the property of the short-hair fraternity in which "shovers of the queer" and other lawbreakers are included.

The *Mail Order Journal* for June is full of further enlightenment. "The sucker," it states, "neither learns nor does he forget anything," thus testifying that it is the lowly and ignorant upon whom the mail-order people prey. This further estimate of the character of mail-order buyers is also given:

"The first sucker traded a paradise for an apple. His descendants are smarter and take nothing short of a gold brick."

In urging mail-order merchants to advertise during the summer their organ discusses the attributes of the "sucker" with an unblushing frankness and suggestion of fake-promotion that gives out such a strong whiff of the malodorousness of the game that the wonder is that it does not reach the noses of the postal and other authorities.

"The effect of the summer heat upon the sucker must be taken into consideration," says the *Mail Order Journal*. "The first question that concerns us in trying to reach a logical conclusion in regard to the sucker, in summer time, is as to whether or not the heat does not expand his brains, presuming that the brains of the sucker are amenable to the law of contraction and expansion.

"Supposing that they are, very naturally leads to the question: Does the expansion of the sucker's brain make him more of a sucker than ever, and thus peculiarly susceptible to the beguiling allurements of the fake medical ad, or does it cause him to become wise and help him to cling to whatever small coin of the realm he may be able

to get his fins upon? We are inclined to think that the expanding of the sucker's brain makes him a bigger sucker than ever.

"In the summer time the mail order publications obtain a much wider reading than they do in the winter, for the reason that at this time the city folk get together their lawns and dimities, straw hats, band boxes and hammocks, for a trip into the country to see their cousins, Si, Mandy and Josh. The mail order publications, going as they do for the most part into the rural districts, during the summer months become the diversion of not only the ruralites, but their visiting city cousins as well."

According to the same plain spoken authority, "agricultural and religious suckers—that is, suckers reached by the agricultural and religious papers—are considered by the 'profesh' as the best, and usually command a premium."

Although many are not aware of the fact, the sale of names obtained from answers to such advertisements has attained the magnitude of a considerable business. They are passed from fakir to fakir at a good price; as a result, the "suckers" are deluged with a wave of printed matter the origin of which they are often unable to trace. This desire to "get names" is the basis of many fake offers and fraudulent ads., of which that which the Mead Cycle Co. persist in publishing—an offer of a bicycle to all who will distribute 1,000 of their catalogs—is a good type.

Marble Will Continue Business.

At a meeting of the creditors of W. H. Marble, Brockton, Mass., two-thirds of those interested being present or represented, an agreement was reached whereby Marble can continue business, as it was demonstrated to the satisfaction of all that he will be able to discharge every liability within a few months.

Most of the assets of \$5,000 represent leases on wheels, all good. The largest claims are held by the Miami Cycle & Mfg. Co., of Middletown, O.; Brown & Wales, of Boston, and the Hartford Rubber Works Co.

Gridley is Insolvent.

In the bankruptcy court at Syracuse, N. Y., last week, the old case of the Dodge Bicycle Co. came up again. An adjudication has been prevented thus far by an attempt which has been made to prove that F. W. Gridley, formerly president of the Exchange National Bank, was a member of the firm. An attempt has been made to make Mr. Gridley a party to the proceedings. Gridley's attorneys admit that he is insolvent individually and as a member of the firm, and their answer is withdrawn.

Dodge Also a Bankrupt.

At a hearing before Referee in Bankruptcy Stone, at Syracuse, N. Y., last week, it was agreed that Horace Dodge be declared bankrupt individually and as a member of the Dodge Cycle Co., without the name of F. W. Gridley being associated in the case.

ALL FOR BONDHOLDERS

Keating Sale Will Not Benefit General Creditors—How Matters Stand.

At a special session of the Connecticut Superior Court on Saturday last the final report of the committee on claims against the Keating Wheel and Automobile Co., of Middletown, which allows C. D. Rood, of Springfield, Mass., something over \$161,000, was accepted and ordered placed on file.

Receiver F. A. Betts said that he had had several offers for the building alone and some for the machinery separately, but he thought it was for the best interests of all that everything should be sold together. He had had three offers for the plant as a whole. He now had a certified check for \$10,000 from the Eisenhuth Horseless Vehicle Co., of New York, for a sale of the entire plant, the balance of the cash before August 1. The price was to be \$150,000 for the building, machinery and fixtures, and \$60,000 for the personal property. After paying all claims due for insurance, etc., this price would give the bondholders 80 per cent on their claim. There are now due \$88,000 on the bonds, \$37,500 on the mortgages and some \$20,000 for other expenses.

Mr. Betts thought there would be nothing left for the general creditors. He asked for an order of sale, and same was granted. The court then adjourned until July 25.

According to the order of sale, if Mr. Betts is unable to give a deed by August 1 the certified check is returnable to the Eisenhuth company. If they fail to pay the \$140,000 still due on the real estate by August 1, the check becomes an asset of the Keating company, and Mr. Betts is at liberty to sell the plant to any one else.

Holley's Future Home Started.

Contracts have been signed and work begun on a brick building 100x35 at East Bradford, Pa., to be occupied by the Holley Motor Cycle Co. The present quarters of the concern at Bradford are quite inadequate, and the Board of Trade of East Bradford interested itself in the matter, with the above result. When the factory is completed it is expected that more than one hundred men will be employed.

Czar Wants an Accounting.

At Pittsburg, Pa., last week, the Czar Cycle Co. and others filed a bill in equity in Common Pleas Court No. 2 against H. G. Wasson and others asking for a decree to compel Wasson to make an accounting of a certain trusteeship alleged to have been accepted for the benefit of the creditors of the J. W. Holmes Co., Ltd. The action seems to be a dispute over claims. There is about \$1,700 involved.

William G. Calver, individually and as a co-partner with Edward R. Allen, lately trading as the Allen Glass Gauge Co. and the Vertical Bicycle Mfg. Co., of Philadelphia, was adjudged a voluntary bankrupt in the United States District Court, Philadelphia, last week. Liabilities, \$3,503.76; assets, \$300.

WON FAME IN A DAY

Motor Bicycle That Stirred the Cycle Show Almost Ready for Marketing.

It may now be said that the Royal motor bicycle is fairly launched. Offices of the Royal Motor Works have been established in Chicopee Falls, Mass., and the famous Victor plant is now engaged on the first run.

It is fair to say that preceding its formal manufacture no bicycle has of recent years attracted more attention or been so much

The originality, the clean-cut lines, the compactness and the simplicity that caused the furor at the cycle show are all retained. The feature that will distinguish the Royal motor, which is carried in a truss forming part of the seat post, is the vertical cooling flanges. They run up and down the cylinder, instead of around it, as usual. This departure caused considerable comment, but, whether or no it is due to the position of the flanges, it is a fact that the engine has never been known to overheat. The Royal people say they have found that these flanges do contribute to the cooling of the motor, the cold air being sucked in at the

and one gallon of gasoline will, it is claimed, run the machine one hundred miles over ordinary roads at a cost of about one-eighth of a cent per mile. Less than two weeks ago it completed a century on less than seven pints.

The muffler is another carefully thought-out device. It is only about half the size and weight of the general run of mufflers, and, in addition to this, it really muffles. It consists of a piece of tubing, closed at the ends and drilled with a number of small holes. Around the tube is wound a length of wire, closely in the centre and with the coils wider apart at the ends. Through the holes and past the coiled wire the escaping gas finds its way, being reduced in the process in a very unusual degree. The muffler is placed close to the exhaust valve, the tube running parallel with the ground.

A special two-speed gear is employed, allowing the machine to be run at the lowest pace desired in the crowded streets or in climbing steep hills, while the high speed, it is asserted, will take it at thirty miles an hour over a good road through rolling country. The two-speed gear also affords a free wheel, allowing the adjustments of the gasoline feed, and the motor to be tested indoors or before mounting the machine.

The oil reservoir is contained in the top tube of the frame, and the oil is fed automatically into the engine at the rate of a few drops per mile, one filling of the reservoir sufficing for more than two hundred miles.

Batteries of more than 6 volts and 17 amperes are contained within the long cylindrical case fixed to the lower tube of the frame. The gasoline is carried in a tank arranged over the rear mud guard, and is fed to the mixer, or atomizer, fixed midway between tank and motor.

There is no air mixture to be regulated while operating the machine, however. When once set the mixer is adjusted for months of use.

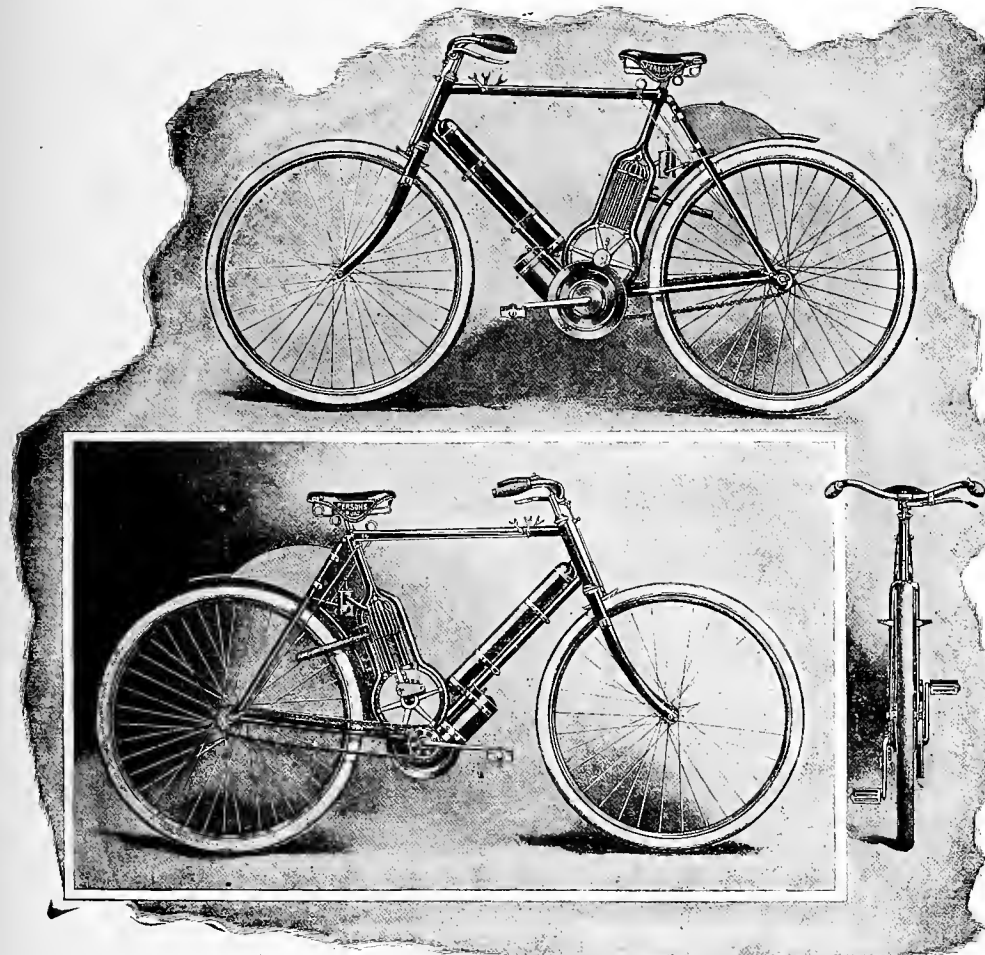
In operation the entire speed of the machine is controlled by one lever, which regulates the exploding spark in relation to the position of the piston in the cylinder.

The gasoline feed and the cylinder oil feed are turned on when the machine is started, one lever operating both; nor is it designed that they be touched again as long as the machine is running.

In equipment no expense will be spared. The best tires, rubber pedals, Royal motor saddle, Billings & Spencer wrenches and tools, etc., will be supplied without extra cost.

The weight of the machine is about eighty pounds.

Macrery & Tonkin, the Anto-Bi agents in Brooklyn, N. Y., are promoting a motor bicycle run for July 4 and 5. The course laid out practically makes a circuit of Long Island, and covers about 225 miles. It will take in the stiff hills of the North Shore and levels of the south side of the island, thus giving the bicycles a test that will mean something. Already twelve riders have booked for the trip. All others will be welcomed.



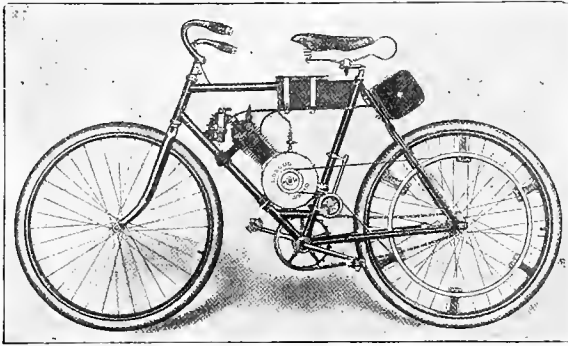
talked of. Since it was first unostentatiously shown by its clever inventor, Emil Hafelfinger, at the New York Cycle Show, in January last, when it created a distinct sensation, down to date it has not ceased to be talked about and referred to whenever motorcycles have been discussed.

Since its debut it has been considerably improved and given several performances on road and hill that have quite upheld its reputation so suddenly created. The illustrations show the perfected model, but, good as they are, it is simple justice to say that they do not flatter the bicycle; it is even more attractive and beautifully made than pictures can well portray. If it but bears out its appearance and initial performances its future is not uncertain.

bottom and passing out at the top and that they offer more surface to the air.

The power is transmitted from the motor shaft to the rear wheel by means of a single chain. No belts, pulleys or extra chains are used. On the left-hand end of the shaft is mounted a small spur wheel, which meshes with one much larger. The latter is mounted on the crank shaft of the bicycle, to which, on the opposite or right-hand side, the sprocket wheel is fitted. This crank shaft is fitted with a clutch which permits the cranks to remain stationary when the rider is coasting. From this sprocket wheel the chain runs to the rear sprocket in the usual manner.

The power is controlled by a switch button, which rests against the left thumb, instead of by the detachable grip, as usual;



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of the

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you should
send for one.
We want you
to act as our
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The MERKEL MOTOR CYCLE with its Single Lever Control is certainly a GREAT STUNT.

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are worse than cheap shoes. They wear out quickly and "make you cuss."

FISK TIRES

are like the custom-made article—high grade, ever comfortable and satisfactory.

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The Value of the MORROW COASTER BRAKE.

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try it. Look around you—note the bicycles that are not equipped with coaster brakes—get the names of the owners—then address them—send them the Morrow literature—invite them to your store—let them try a "Morrowized" bicycle, if possible, and the volume of

MID-SUMMER SALES

should more than repay you for the effort.

ECLIPSE MFG. CO., ELMIRA, N. Y.

New York Branch, 105 Chambers Street.

The New Departure Coaster Brake.

Send for Catalog and Prices.

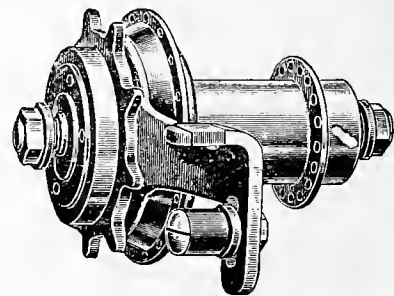
YOU'RE IT !!!

WITH A NEW DEPARTURE COASTER ON A WHEEL LIKE MERCURY, WITH HIS WING UPON HIS HEEL. THE AUTOMOBILE ISN'T IN IT. YOU CAN COAST A MILE A MINUTE. YOU FAIRLY YELL FOR JOY SO GOOD YOU FEEL

Speed as Pleasure as Protection.

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THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
"The Wheel" and the "American Cyclist."

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Change of advertisements is not guaranteed unless copy therefor is in hand on SATURDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 649.

NEW YORK, JUNE 27, 1901.

Mail-Order Malodorousness.

It is difficult to read the extracts from the publication devoted to the mail-order interests, which are published in another column, without imagining that they do not emanate from the "under world"—Josiah Flynt's "world of graft."

The terms employed, the subjects discussed and the unblushing manner in which they are discussed give out an odor so strongly suggestive of crookdom that the nose of normal man is offended. How the stench fails to reach official nostrils passes understanding.

It may be that our Secret Service is too busily engaged in ferreting out manufacturers of illegal money, but it is certain that this mail-order game warrants official attention of some sort; if no law exists that will reach it, one is needed. The protection of legitimate professions and commercial interests would seem to require it, particularly as the same protection would also save those who seem least able to save themselves—the

soft and confiding agricultural and religious classes—the "suckers," who, according to the Mail Order Journal, are considered by the "profesh" as being "worth a premium."

The United States postal regulations already forbid the circulation of secretly mailed green goods circulars. It is time an effort was made to have them apply to the bold and unblushing mail-order pamphlets and catalogs, the lies and fraud of which as applied to bicycles we have already exposed.

The "industry" that brazenly terms its customers "suckers" carries with it its own damning suggestion that its methods are illegitimate and will not withstand a very deep probe.

Mistakes no Longer Excusable.

There can be very little doubt that the bicycle of to-day is, notwithstanding its exceptional cheapness, a more satisfactory machine in almost every way than has ever been offered to the public.

That this is true is not altogether surprising. Years of practice, and of endeavor to produce machines that will give the minimum of trouble make to this end. An ounce of prevention is felt to be worth much more than a pound of cure in this case.

The consequence is that an overwhelming majority of the machines that pass the factory inspectors are, as they should be, right.

The troubles, some petty, others serious, that were formerly complained of have almost disappeared. The complaint book is no longer a bulky volume, as of yore, and the express companies are not now in the habit of returning almost as many machines as they take away, as was jocularly remarked of some makers of unsavory memory.

Even the early troubles, which have come to be regarded as the indispensable, if unpleasant, concomitant of each recurring season, have been much smaller in number this year.

This is as it should be, of course. Nevertheless, it has taken a long time to bring about such a satisfactory condition of affairs, so great were the difficulties in the way.

The trade has reached a stage where mistakes are no longer excusable. Even small ones are regarded with little consideration.

Trade That is Doubly Welcome.

These are the days when the alert dealer bids briskly for the midsummer holiday trade, and blesses the man who invented commencements and the vacations which follow them.

He rubs his hands with vast satisfaction when some carefully nursed sale is at last consummated. Even the thought of having taken a machine in trade in order to effect the sale fails to cast any substantial shadow over his joy. If it is a clean sale, however, his cup of bliss is overflowing.

Entirely unexpected sales also come his way at this season. The indulgent parent comes into the store, drives a bargain in five minutes, and walks out, leaving instructions to send the machine to his house.

The school year over, and over with credit, the boy claims his reward—promised or inferred. If the choice has been left to him it has been long made, and it is only necessary to conclude the negotiations and take away the machine.

Frequently, however, nothing has been done beyond the giving and acceptance of the promise of a bicycle. Its purchase the parent undertakes to make, and concludes with more or less satisfaction to himself.

The dealer can never be sure that such sales will fall to his lot. Advertising does a lot toward it, as does a reputation for reliability or promptness and the possession of the agency for machines of established reputations.

It is absolutely necessary, however, that the dealer should be able to deliver the machine desired at once. No boy worthy of the name—or parent, either—will endure delay.

Profits Suffered to Pass.

Attention has been directed time and again to the vast and profitable field presented to the bicycle maker and dealer by the more sparsely settled sections of the country.

Of late years such sections have yielded much richer returns, by comparison, than the cities. Consequently they have been worked more thoroughly than ever before; yet they give little sign of approaching exhaustion.

That even yet they have not yielded all they are capable of is demonstrated most forcibly by the experience of the mail-order houses.

These have made enormous sales of bicycles, developing by their peculiar operations a demand that few would have believed to exist. Even the most zealous workers in the field must stand aghast as they contemplate the capacity of the agricultural population for absorbing cheap bicycles.

Cheapness is, of course, the keynote of this business. Buyers have not got past the stage where cheapness overrides all other

considerations. It is only after the machine has been purchased and ridden that they awake to the realization of the fact that something else is needed in a bicycle than low price.

After they have been once or twice bitten they will be a little more amenable to common-sense considerations. Then will come the opportunity to provide them with better bicycles.

Meanwhile there is a better course to pursue than to sit idly by and see all this trade gobbled up by the mail-order houses.

It is to keep hammering away at the \$10 and \$12 bicycles put forth as lures for the unwary. Expose their worthlessness and disseminate a wider knowledge of the real cheapness of higher-priced machines, which, after all, are of sufficiently low cost to be within the reach of the majority of those who buy the man traps put forth by the mail-order concerns.

If every dealer whose trade is hurt by the advertisements of these houses were to take the trouble to lay bare the facts to possible buyers he would deal the concerns referred to a telling blow.

Motocycles as Advertising Mediums.

We have before remarked that the motor bicycle has a value apart from itself—that in the hands of a capable and far-seeing dealer it is an advertising medium almost beyond price.

It gives him advantages and publicity that can be obtained by nothing else now within his grasp. Unless his home place be a large city, it is safe to say every one in town will know of him and talk of him. A reasonably large proportion are certain to call on him, many to satisfy idle curiosity, others full of interest in the new machine.

The mission of all advertising is to bring people into the store. That accomplished, the making of sales devolves on the salesman. It is his duty to sharpen curiosity into interest, and interest into purchases, if not of the particular article advertised, then in something else carried in stock.

Testimony of the store-filling power of the motor bicycle is to be had in plenty. Thus a Massachusetts dealer states that in the first few days after the arrival of his first machine he had not fewer than three thousand callers. Another, this time in Connecticut, writes: "I find the motor bicycle to be a great advertisement. Before the rain set in it had sold more bicycles for me than I sold all of last year."

In considering the matter the dealer should not overlook this feature of motorcycles. It represents just so many dollars' worth of valuable advertising and publicity that can be obtained by no other means.

Testimony That Tells.

As the use of motorcycles and other gasoline propelled vehicles increases, it is reasonably certain that aldermanic "strikes," such as has been instituted in New York will be felt elsewhere. The "dangers of gasoline" will be pictured in crepe-colored language and the interests affected will be put to it in making defense.

At such times the testimony of Fire Chief Croker—by common consent the best chief New York City has ever had—becomes of inestimable value and assistance. He gave it freely when the anti-gasoline ordinance was first introduced here. It is so short and to the point that it deserves the widest circulation possible. It follows:

"Parlor matches cause more fires than gasoline, and some deaths every year, yet no one thinks of prohibiting their use. Gasoline is no more dangerous in use than many other substances of like kind when handled properly. There is already a law to govern its storage and use, and no new one is needed. As to the use of gasoline in automobiles, I consider it almost absolutely safe. I have been using it myself for a year and a half, and have never had an accident with it."

Coming from such a competent source, Mr. Croker's testimony is convincing and must carry great weight wherever it may be brought to bear. None interested should lose sight of it. It should be kept close at hand for reference and use.

Cause for Hesitation.

If there is anything calculated to inspire and provoke opposition to the extension of the parcels post and rural free delivery systems, it is the warm advocacy of the mail-order people. Every extension of the sort causes them to hug themselves for joy. The Mail Order Journal, the publication that styles mail-order customers "suckers," makes this plain.

Commenting on a published report showing one town's losses due to the patronage of distant mail-order houses, the Mail Order Journal gleefully points to it as but one of the signs of "the revolution that is crowding the country merchants to the wall." It pre-

dicts that "it will grow and continue to grow with the increase of the free rural delivery."

It is interesting to watch the approach of a motor bicycle and to note the interest it arouses even among pedestrians. At a distance it looks as if the rider were coasting with feet on pedals, but the fact that the road is level or even uphill shakes this belief. Then the noise coming from the exhaust catches the ear and changes suspicion into certainty. The motocyclist goes by, endeavoring to look unconscious but succeeding very poorly, and is followed by looks almost as long as he is in sight.

There are few things more valuable as an asset in business than the reputation of being "prompt pay." Every retailer should make it a rule to discount his bills. Not only will he thus gain the benefit of the discount itself—a return for his money much larger than he can obtain in any way outside his business—but he will place himself on terms with the wholesale trade from which he can frequently derive considerable pecuniary advantage.

There is a remarkable persistency displayed in adhering to the forward position. Riders evince not the slightest inclination to retrace their steps. Nearly all machines now have forward-turned posts and seat post tubes approaching an upright position, but frequently even this combination does not bring riders far enough forward. The over-the-pedals position certainly bears out the claims made for it years ago, when Zimmerman and other famous riders introduced it.

As the result of Russia's retaliation, born of the Congressional bunco policy of "protecting" "infant industries" that are not infants, and that need no tariff protection, trade with that empire has been cut short. As evidence it is a matter of record that one of the steamships bound for St. Petersburg, which formerly carried from 400 to 1,000 tons of American wares, carried on its last voyage but 100 barrels of bark extract.

Plans are already under way for the 1902 patterns in a number of factories. The next selling season is a long way off, and many things may happen between now and then. But if present indications are worth anything, there will be small changes in design from the present patterns.

CONVERT'S CONFESSION

**Motor Bicycle Wins Over Another Doubter
—Causes That Convinced Him.**

London, June 12.—I think that I must own myself a convert to the motor bicycle, so far, at any rate, as fine weather riding is concerned. During the past week I have had long spins on the Werner, and with most satisfactory results. The machine is fast and extremely steady to steer, the only difficulty in the latter being taking corners when the motor is running fairly fast. A little care is then necessary to prevent side-slip, especially if the road be at all dusty. The great charm of the motor bicycle is the comparative absence of vibration, which is really remarkable, especially to any one who has been accustomed to the ways of the motor tricycle. Naturally there is the ordinary vibration of a bicycle, but this is not much when it comes singly and is not exaggerated by the lateral sway and thumping inseparable from the three-wheeler. I am inclined to think that so soon as more motor bicycles get about in this country their popularity will be assured, at any rate for summer riding on country roads. For town work and under bad conditions the tricycle may hold its own; it is a class of motor which peculiarly appeals to commercial travellers and others having business in large towns; for the ordinary motocyclist, who merely rides for pleasure, there can be no doubt that a good motor bicycle is superior.

The tire question is also likely to be much less serious with the motor bicycle, because a good deal of the wearing to which the tires of motor tricycles and voitnettes are exposed is due to the rolling action set up. This is altogether apart from the weight carried, so that, although the tires of a motor bicycle may each have to carry approximately the same load as those of a motor tricycle, owing to the weight not being distributed over three wheels, yet I fancy that they will not wear so quickly, especially if kept pumped very hard. The tire question is really the most serious one now before the motocyclist and the owner of a light car, as the cost of upkeep of some of the tires fitted is really very great and quite disproportionate when compared with the amount of wear got out of a set of tires, even if manufactured by the very best firms and treated with the greatest care. The saying in the direction indicated will, without doubt, materially help to popularize the motor bicycle.

There is also another feature about the motor bicycle which should be considered, and that is the comparatively low cost, owing to the absence of complications in the gearing line. In addition to this the actual motor can be smaller in proportion, as the efficiency is much greater, owing to the direct transmission possible. There is very

little loss by the direct band, such as that employed in the Werner, where no idle wheel is employed to either take up the slack or to enable the band to clear some part of the machine. The only question which arises is whether, in the event of the machine being largely used in hilly districts, it would not be an improvement to fit some small form of two-speed gearing, the latter only to be working when the machine is ascending hills. This need not interfere with the direct driving which is so efficient. As I have before pointed out, the motocyclist does not care to have to pedal uphill if he can help it.

Owing to the anti-motor feeling of many district councils, there have lately been several propositions to bar the passage of motors through certain towns. Of course, the councillors have no powers in the matter, but they are about to frame regulations and to endeavor to get them made law. This is hardly likely to come about, but the attempt shows the bigoted feeling at present existing against motors of all kinds. It is, indeed, hard to understand how ever it came about that railways were first of all used in this country, having regard to the frantic opposition with which everything new is now received. It may have been due to the fact that in days of yore the government was in the hands of the more educated classes, whereas most of the county and district councillors are now drawn from the ranks of the ignorant. Thus it would seem that democratic forms of government have their failings.

Motorcycle's Good Work.

It is interesting to compare the performances of the motorcycles in the recent race from Paris to Bordeaux with the best bicycle records over the same course. The distance is 327½ miles, and the best record for a bicycle paced by single bicycles is that accomplished by Lesna last month, of 21h. 53m. 40s.

In the motor race the first eight motorcycles were tricycles, and their times varied from 8h. 1m. 3-5s. to 11h. 34m. 52s. The two motor bicycles in the race finished within 20 minutes of each other, the first in 12h. 30m. 55s.

The average pace of the winners in each class was as follows:

	Miles per hour.
Fournier.....Heavy racer.....	Over 52 2-5
Giraud.....Light car.....	Over 39¾
L. Renault....Voiturette.....	Over 36
Teste.....Motor bicycle....	Over 40 1-3
G. Rivierre...Motor bicycle..	Over 26

The fact that the tricycles beat the bicycles so badly is due entirely to the difference in power. The latter were fitted with 1¼ horsepower motors, while the tricycles employed abnormal 8 horsepower affairs totally unfit for ordinary usage.

Keating Seeks a New Factory.

It is reported that the R. M. Keating Motor Co., recently organized at Portland, Me., has leased the old Mills bell factory at Middletown, Conn.

PROMISING MARKET

The Bicycling World Locates a Foreign Field That Will Repay Tilling.

In seeking information for its export issues the Bicycling World has uncovered several little thought of but promising markets. Syria, which will serve as an example, is but one of them. In forwarding the names of interested merchants, located in seven cities, our correspondent in Beirut writes:

"Until recently it seemed quite impossible to introduce bicycles into Syria, as it was generally supposed that the roads of the country were wholly unfit for the use of such machines, notwithstanding our assurances to the contrary. We finally decided to put our assertions to a practical test, and purchased one of several bicycles that had been imported from Chicago. Our friends, seeing the possibility of cycling here as a new and interesting pastime, soon purchased the remainder, and more have been ordered.

"This is, of course, only a small beginning, but we are hopeful that if a few dozen people begin riding here bicycles will soon win favor, and Beirut, being a city of some 120,000-135,000 people, should be able to produce many purchasers. I think the reason bicycles have been so unfavorably looked upon here is due to the fact that there have not until quite recently been any up-to-date, light, easy running wheels imported. The people have occasionally seen some ancient safeties dating back some dozen years or more, pedalled under many difficulties over the streets, and naturally have looked with much disfavor on such modes of locomotion. Now that we have 1900 and 1901 models, chain as well as chainless, and the prices have become more reasonable, the prospects are we shall see no small number of wheels brought into the country in the near future. Your illustrated export editions of the Bicycling World will be welcomed."

How to Pack for Export.

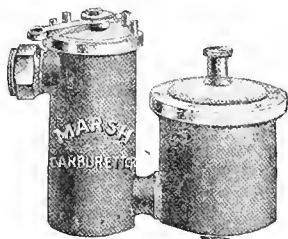
Defective packing of goods for export trade has long been a cause for complaint on the part of foreign merchants and consuls. The complaints are not so numerous but that the cycle trade has not yet learned the lesson thoroughly, as a report from Consul Fleming, at Edinburgh, indicates.

In an extended article on the subject, in which he details the proper packing of the better known articles of export, he singles out the packing of bicycles and parts as being the cause for complaint.

As a rule, Mr. Fleming says, the material of which American crates are made lacks the proper strength. The same is true of the cases in which bicycle parts are shipped. Solid crates and cases are required, he adds with positiveness, as rough handling is always to be expected.

If Dissatisfied, Money Returned.

In addition to the Marsh motor bicycle, the Motor Cycle Mfg. Co., Brockton, Mass., is also selling parts and fittings to those who prefer to build their own motorcycles. The



Marsh float-feed carburettor, here illustrated, is one of their products. It is made of aluminum, and weighs less than one pound. It is designed especially for air-cooled motors between 2-inch and 3-inch bore, "and not for every size and kind of motor on earth," as the Marsh people express it. They list it at \$12, guarantee it to be absolutely reliable, and, in case it fails to work satisfactorily, agree to take it back and refund the money—which is pretty strong evidence of their faith in it.

No Air Cushions Needed.

The Knoll spring frame bicycle, described some time ago in the *Bicycling World*, is being exhibited at New England points with the view of securing agents for it. So luxurious is a machine with this spring frame claimed to be that pneumatic tires are dispensed with, solid ones being used instead.

The Retail Record.

Hammondsport, N. Y.—G. H. Curtiss succeeds J. H. Smelhe.

Rockford, Ill.—Chase & Ticknor, dissolved; Ticknor will continue.

McPherson, Kan.—McPherson Cycle Co., W. S. Young, retired.

Plainfield, N. J.—Nelson Van Winkle, North avenue, succeeds W. H. Rogers.

Elmira, N. Y.—Elmira Arms Co., purchased business of Paul A. Renton, East Market street.

NEW STORES.

Martinsburg, W. Va.—Boyd Lambert & Co. Belfast, Me.—F. J. Stephenson, High street. Kendall Mills, N. Y.—James Bissell, jr., repairing.

Cheshire, Mass.—Kearn & Powers, Masonic Building.

FIRES.

Pawtucket, R. I.—Dawson & Co., Broad street, damaged by smoke.

Oskaloosa, Ia.—Slatern Bicycle Shop, 114 First avenue, West, almost total loss, partially insured.

BURGLARY.

Buffalo, N. Y.—Patrick A. Powers, loss \$50.

Recent Incorporation.

New York City—The Ball Tire Co., with \$300,000 capital, to manufacture every kind of vehicle tire. Directors, Mendel Presberger, of Passaic, N. J.; Maurice Moses, Moss Ferris Moses, David Gordon and Hyman Pragoff, of New York City.

Lessening Motorcycle Weight.

In their efforts to add to the improvement of motorcycles, the Dow Portable Electric Assistant Co., of Boston, have brought out a combination coil and battery designed spe-



cially for use on those machines; it is shown by the accompanying illustration. The battery is incased in a single cylinder 2½ inches in diameter and 11 inches long. The whole device weighs but 7¼ pounds, and, the Dow people say, is giving results far beyond even their expectations.

But the "Fad" is Off.

"Bicycle riding is evidently considered old-fashioned this spring."—(Kennebec Journal.

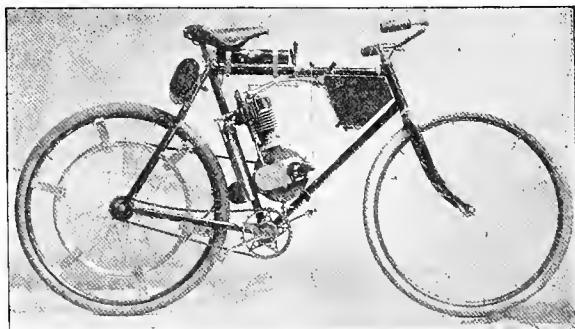
The kind you ride may be; but there are others not so old-fashioned as they might be. So some grandmothers are considered old-fashioned. But I'll bet my old bat that if my poor old grandmother could have realized what a nice thing an up-to-date bicycle really is, it would have taken something fully as startling as an earthquake to have prevented her riding one—even at her age. So, too, some kinds of wagon riding are considered old-fashioned; but wagons, however, are considered staple property nowadays—so, too, are bicycles—and the "fad" is off.—(Farmington (Me.) Advertiser.

WHAT'S THE USE of Standing Astride the Fence?

You know what the proverbs say: "The man who hesitates is lost"; "Faint heart ne'er won fair lady," etc., etc.

GET OFF THE FENCE!

If there's "nothin' doing" in your locality, get off the quicker. It's time you interested yourself in motor cycles. You can't do it too soon, and you won't be able to find so good a motor bicycle as

THE MARSH.

It will draw crowds to your window and fill your store with probable buyers. If you know how to talk, the rest is easy.

The Marsh has features all its own; you can't afford to overlook them. It will prove an invigorating

TONIC FOR LANGUISHING TRADE.

Our catalog is interesting; our offer to agents is full of magnetism. They may be the means of getting you off the fence. Write us.

MOTOR CYCLE MFG. CO., BROCKTON, MASS.

"Three graces of the North Pacific."

PORTLAND, TACOMA, SEATTLE.

These are the capitals of a vast territory. A region which is an empire in itself, with resources sufficient to sustain a population of three empires.

For particulars as how best to reach this new empire from points east of Chicago and St. Louis, call on the nearest agent of the

NEW YORK CENTRAL LINES.

A copy of the 40-page Illustrated Catalogue of the "Four-Track Series," New York Central's books of travel and education, will be sent free, post-paid, to any address on receipt of a postage stamp, by Geo. H. Daniels, General Passenger Agent, New York Central & Hudson River Railroad, Grand Central Station, New York.

RACING

No race meet in recent years has been more prolific of incidents and accidents than the one which marked the opening of the summer season at Madison Square Garden, New York, on June 24. Two amateur events with many heats and several waits between, spun the program out inordinately, and it was not until 11:25 that the feature of the evening, the fifteen-mile motor paced race, was got off. A restart was necessitated by an accident in the first mile. Almost from the next pistol fire the Californian gained, and in the endeavor to pass he lost his pace and attempted to go by Nelson on the inside; the result was that he ran on to the floor and his machine slipped under him. Another wheel was speedily procured, and McFarland started again, 1½ laps to the bad. The half lap was soon made up, but immediately after he lost his pace again and availed himself of Nelson's, incidentally forcing the latter to his own rear wheel. From this point on the race was a comedy of errors, ending with what for a time almost seemed to partake of the elements of tragedy. The rear tire on Nelson's pacing machine burst, throwing the rear rider, the Swede's second machine did not work properly and Nelson tried McFarland's game and followed the latter. After vain attempts to shake Nelson his opponent sent the pacing machine off and the two rode around alone. At the fatal thirteenth mile McFarland's tandem, it having resumed pacing again, went down just before entering the straight. First McFarland and then Nelson crashed into it. The Swede was dragged out and put on his machine to clinch victory, with blood streaming from his left cheek. McFarland was partially unconscious, and lay at the track-side for half an hour, when he was removed to a hospital. Fortunately, his injuries were much less serious than at first supposed, no bones being broken.

Seven starters in a motor-paced event make a more picturesque race than the usual two or three cornered affairs. Nevertheless, the 25-mile open, ran at Manhattan Beach, New York, on June 22, was virtually a race between Walthour and Michael, the other five men being merely in the "also ran" class. The little Welshman made it interesting for the Southerner until the last two or three miles, when he went to pieces. Walthour took the lead early and held it until the 19th mile. At this point repeated efforts on Michael's part to pass were finally successful, but the effort was his undoing. Two miles later Walthour easily regained the lead and held it to the finish without effort. During the last two or three miles Michael repeatedly called to his pacing team to ease, and he was plainly ridden out, making no effort to challenge the winner. Time, 41.41 2-5. McEachern, Hoyt, Pierce, Caldwell and Nat. Butler was the order of

the finish of the other men, who were strung out for more than a mile. In the short-distance races Kramer won the one-third mile, and the mile handicap resulted in a runaway, Frantz Krebs, 160 yards, being the winner.

There have been more exciting races at Charles River Park than the one run on June 22, but few, if any, marked by cleaner and steadier riding and marred by fewer incidents. The winner, Stinson, was never pushed, holding his rivals, Champion and Linton, completely at his mercy and riding in record time for the track. The occasion was a 25-mile motor-paced race between the three men named, and the time, 39.07, speaks for itself. It averaged 1.34 to the mile, Stinson's fastest being just under 1.30, while that for the 25 miles is just one second better than Nelson's Decoration Day record on this track. Stinson rode a steady race, getting to the front early and beating Champion by 2¼ laps and Linton by 2¾. The latter had a great race for second money, see-sawing until the 24th mile, when Linton finally gave up the fight, and Champion crossed the tape in second place.

Although robbed of much of its interest by a fall that carried down almost half the contestants in the early part of the race, the ten-mile open professional event was again the feature of the day at Vailsburg, N. J., on June 23. The shining lights of previous races were missing at the finish—McFarland suffering from the effects of a fall the day before, Kramer having gone down in the crash referred to above, and Newhouse dropping out early in the race. Nevertheless, the lap and mile prizes insured good time and exciting brushes that kept the spectators on their feet most of the time. The finish was of the blanket order. Cooper led and just managed to beat out Fenn and Ross, Fisher and Maya being the other placed men. Time, 22.53. Despite the monotony of Hurley's wins in the amateur races, his new victories—in the mile open and half-mile handicap—were tremendously popular.

A race won in the last lap, after a long and exciting stern chase, was the spectacle offered the good people of Providence, R. I., on June 19. Moran and Ross were the contestants, the event being a 25-mile motor-paced race. The men fought fiercely for the lead, and at 20 miles Moran's pacing machine gave trouble and the Jerseyman got half a lap lead. From there to the end the race was a grand one, Moran creeping up and finally catching Ross, but all efforts to pass failed. Not until the bell lap did Moran obtain his opportunity, when he went by with a rush and crossed the tape first in 40.47 4-5. McFarland won both the professional races, the mile handicap in 2.01 1-5.

Major Taylor has sailed for this country, leaving behind him the reputation of being almost unbeatable. Barring his first beat-

ing by Jacquelin, he has had almost a clean record, his unsportsmanlike defeat by Ellegaard at Copenhagen being a bad duke. Taylor's tire burst, and the Dane seized the opportunity to secure a cheap victory. A three-cornered match race with Momo and Protin at Antwerp on June 1 was interrupted by rain after the first heat, which was won easily by Taylor. On June 3 Arend gave Taylor a very close race, the American just managing to win by inches in a 1,000-metre scratch race.

Until the beginning of the last mile Ross looked the logical winner at Vailsburg, N. J., on June 22. He met McFarland in a 20-mile motor-paced race at the postponed meet of the Atlanta Wheelmen, and was defeated by a half length only in 32.18 2-5. The pace was slowed considerably in the last few miles, Ross leading, and this suited the lanky Californian exactly. The last mile, therefore, was run in 1.26 3-5, with McFarland getting in front only when the straight was reached. An Australian pursuit race between Fenn and King was won by the former after 4 miles had been ridden. Time, 9.38 1-5.

Nelson added to his lengthening string of victories at Baltimore on June 19. In a 25-mile motor-paced race he easily disposed of Pierce, crossing the tape 1 mile and 1 lap in the lead. Time, 40.08. It was the usual story, slightly varied by motor troubles on the part of Nelson. The latter took the lead, kept increasing it steadily until a little more than half the race had been run. Then bad sparking of Nelson's motor gave Pierce a chance to regain some of the lost ground, but he made up less than a lap, for by that time the operator had got the right mixture and thereafter there was never the slightest doubt about the result.

What was to have been a three-cornered 15-mile motor-paced race at Worcester, Mass., on June 21 developed into a contest between Charles Porter and Nat. Butler, Munroe's pacing machine going wrong immediately after the second start and erasing him. Butler made the contest interesting for 4 miles, but after that it was just a question of how much lead Porter would have at the finish. This figured out two-thirds of a mile, the time being 25.15 3-5.

Walthour easily disposed of Freeman in an uneventful 20-mile motor-paced race at Springfield, Mass., on June 20. No pacing troubles were encountered by either man. Walthour took the lead at the start and steadily increased it, being 1 1-3 miles ahead at the finish. Time, 34.10 2-5.

There will be fat pickings at Manhattan Beach at a meet being arranged for early in August, when a purse of \$5,000 will be hung up. It is to be an invitational motor paced race, middle distance, and it will be the endeavor of the management to secure a number of European cracks as starters.

WHAT IT MEANS

Recent Bankruptcy Decision Dissected— Creditors Have Two Courses Open.

As it has become better understood, it is seen that the recent important decision of the United States Supreme Court affecting bankruptcy cases plainly makes for the maintenance of equity in such cases.

At first blush it looked as if the decision placed a penalty on enterprising creditors, and put them on a level with their fellows who, through carelessness or indifference, permitted doubtful accounts to run along for indefinite periods. But this impression is not warranted by the facts. Collections made in good faith—that is, in ignorance of the insolvency of the debtor—four months before failure need not be returned unless the creditor desires to participate in dividends paid from the bankrupt's estate.

The matter is set forth very clearly and dispassionately by Francis K. Pendleton, a well known New York lawyer and a referee in bankruptcy.

"There seems to be some misapprehension on the part of many in regard to the exact scope of the recent decision under the bankrupt act of the Supreme Court of the United States in the Carson, Pirie, Scott & Co. case, relating to payments on account made by a debtor who is at the time insolvent to a creditor within four months prior to bankruptcy, who receives it in good faith in the usual course of business, and who has no knowledge of any intention to give a preference," he says.

"The decision in question, in effect, merely holds that a creditor who during the four months previous to the bankruptcy has received from the debtor while insolvent a payment on account, although in good faith, must, before sharing in the bankrupt's estate, surrender the amount received, so as to put him on an equality with other creditors. In other words, the bankrupt act seeks equality among creditors, and where one creditor has received an advantage, although innocently, he must surrender it before being entitled to share in the estate *pari passu* with others.

"The bankrupt act recognizes two classes of cases: First—Creditors who bona fide in the usual course of business receive payments on account; these, if they desire, may retain the amount received, but if they wish to share in the estate in bankruptcy they must come in on an equal basis with others. Second—Creditors who intentionally, with reasonable cause to believe it was intended by the debtor to give them a preference over the other creditors, receive payments on their claim in whole or in part within four months prior to the bankruptcy; these are obligated to return to the estate the amount received, whether they will or no.

"The distinction between the two classes

of cases is obvious. The innocent creditor who in good faith, by his extra diligence or good fortune, has received payment on account has the option to retain it, or, if he thinks the estate will pay more in dividends, he can come in on an equal basis with other creditors, surrendering what he has received; in other words, substantially treat the amount received as a payment on account of the dividend.

"The bankrupt act gives him the option in such case as to which course he will pursue; that is, stand on the fruits of his diligence or participate on an equal basis with the other creditors. The rule is based on the assumption that the financial condition of a debtor is not likely to have substantially changed during the short time preceding his bankruptcy, and that the real equities are better subserved by leaving it optional with the creditor to stand on his own position or come in on an equality with others, than to allow him to share unconditionally in an estate which has been already diminished by the amount paid him. As to this opinions may, of course, differ.

"The so often alleged or urged injury to the commercial interests of this rule was elaborately argued before the Supreme Court in the above case, but was considered in the prevailing opinion of the court much exaggerated, and really more imaginary than real, as it was held to be scarcely conceivable that creditors could not sufficiently inform themselves as to the bankrupt's estate to determine whether it was more for their interest to keep what they had or come in on an equal basis with other creditors.

"In the second class of cases, that is creditors with guilty knowledge or means of knowledge, in which the bankrupt act provides that they must refund to the estate, it was intended to prevent the too frequent case of a failing debtor giving a preference to relatives or friends to the detriment of his other creditors. This latter provision of the bankrupt act was in no way directly involved in the decision in question, which dealt simply with the first class of cases above mentioned."

Thieves Know a Good Thing.

Even the sneak thief has got on to the fact that the Iver Johnson is one of the most desirable of bicycles. C. Ford Seeley, travelling representative of the Iver Johnson's Arms and Cycle Works, can testify to the fact. He left his Pacer Model, No. 94,473, standing in front of the American House, Pittsfield, Mass., for a few moments while he was in obtaining his baggage. In his absence the machine disappeared. This model is of the same pattern as that ridden by Elkes and Taylor, with a 26-inch front wheel and straight forks.

Iver Johnson Racer No. 77,510 is also missing. This is finished in vermilion, fitted with Palmer tires and Morrow coaster-brake. It was stolen at Stamford, Conn., on June 8.

The Iver Johnson people are naturally anxious to get track of both machines.

CAUSE OF ACCIDENTS

Horse Enjoys Pre-eminence in the Matter —Bicycle's Small Share.

The horse is a gentle animal, willing, tractable and inoffensive. For untold centuries man has been his master, and to-day, in spite of the locomotive, the automobile and the bicycle, he retains his place in the affections of many people, and is still a favorite when methods of locomotion are in question.

He is so safe, too. He does not go about the streets and roads frightening people to death when he does not kill them. That function is performed by his rivals. Locomotives, automobiles, cycles—all have attained an unenviable notoriety in this respect. If they could be banished from the face of the earth, human life would be infinitely safer. Such at least is the common belief. Even figures will scarcely shake it.

Nevertheless, figures are readily obtainable to prove that it is the horse that is the worst offender of all. His placid, almost human, look is a delusion and a snare. *Le Velo*, the clever Paris cycling daily, has made this plain—if anything of the kind were needed—again and again. It compiles a table of accidents in the French metropolis, and they always show the same—that the horse has earned a pre-eminence as a breeder of accidents.

The March figures have been made public, and they are even more startling than usual.

Figures are given in comparison for the four classes:

Accidents caused by—	
The horse.....	77 fatal. 739 injured.
Total	816
The railway.....	9 fatal. 76 injured.
Total	85
The bicycle.....	3 fatal. 66 injured.
Total	69
The automobile.....	3 fatal. 29 injured.
Total	32
Percentage of accidents due to each class:	

DEATHS.	
	Per cent.
By the horse.....	83.70
By the railway.....	9.78
By the automobile.....	3.26
By the bicycle.....	3.26

INJURED.	
	Per cent.
By the horse.....	81.21
By the railway.....	8.35
By the bicycle.....	7.25
By the automobile.....	3.19

Particulars are given in the *Velo* of the fatal accidents in each. The "shying," or swerving, of the horse in the great majority of cases is the cause of the accident. As might be expected, the fatal accidents due to the automobile, as to the bicycle, are generally those suffered by very young children and aged or infirm persons.

STILL SOMETHING DOING

While Bicycles Sell Slowly, There are Other Sources of Considerable Profit.

There are not wanting philosophical dealers who, resigning themselves to the great change that has come over the bicycle business, make the best of the situation as it is found to-day.

In a conversation with one of these a few days ago, the *Bicycling World* man was impressed with the sound common-sense view of the matter taken. The dealer in question was an ex-racing man, who had drifted into the trade largely by reason of that fact. He had witnessed and participated in the days of big sales. He was now face to face with a very different proposition; yet he took it at its market value and was not at all despondent about the future.

"It has not been a very good year," he said in reply to the direct question. "In fact, it has not been a good year at all. The bad weather knocked out all hope of such a thing. During April and May my business was almost at a standstill as far as sales were concerned.

"But this month—June—has been all right. Sales have been ahead of the average, considerably ahead. It is possible that a little of the lost ground has been made up. Not very much, however. The major part of it is lost for this year. When a buyer puts off his purchase for a month or six weeks the chances are five to one that he will wait until next season. There's no getting around this fact, unpleasant though it is.

"As a matter of fact, sales are only an incidental part of the business nowadays. They are made frequently when least expected. For example, I made a couple of sales yesterday that pleased me mightily. One, in particular, was of a \$90 machine. I don't wonder that you look surprised, but I did. It was a full-nickelled chainless, with cushion frame and coaster-brake. The other was a cheaper machine, but still a good one. The two made a pretty good day's work in the sales department. But such a day is not experienced every week.

"As I have said, however, sales are only incidental. The bulk of our time is taken up with storing, hiring and repairing, with the sale of sundries constituting quite an item. In all these lines business is better than the average. I took in about \$150 from these sources this week, and the week was not at all exceptional.

"If I had to depend on my sales I could not possibly make a living, or even keep my store open the year round. The season is so very short and the volume of sales so shrunk that it would be impossible to come anyway near making ends meet.

"The riding season, however, is much longer, and that enables me to come out all

right. From March to November—sometimes until well into December—I have enough business to keep me going. I'm not making a fortune, of course. But there is enough in it to make a decent living, and that's about all any one can look for in the bicycle business now."

Profits That Never Came.

Ernest Terah Hooley's affairs are still being aired in the English courts. A recent action brought to light the fact that Frank Bowden, the head of the Raleigh Cycle Co., whose wheels were once extensively sold in this country, was to share in the profits of the American Humber concern. Unfortunately, it is asserted, this pretentious concern never showed any profits, consequently Bowden's one-third interest was worthless.



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

One Dealer's Demonstrations.

W. D. Wilmut, the veteran Fall River (Mass.) dealer, has developed into a motorcycle expert and enthusiast of a high order. Wishing to see the new Hendee motor bicycle, he mounted his Auto-Bi at 7:45 a. m. on Sunday last and rode into Springfield, Mass., ten hours later; the distance is 110 miles, and required the use of five quarts of gasoline, costing about 25 cents. Wilmut made several stops, including a long one for dinner, and his trip was in no sense a speed trial, though it demonstrated effectively the practical use of the machine. He spent Monday in Springfield, and then returned leisurely to Fall River, his machine giving not a particle of trouble either going or returning.

For the Man Who Seeks Knowledge.

To the man who is hesitating or who is in doubt on the score of motor bicycles, the little booklet just issued by the E. R. Thomas Motor Co. should be of considerable assistance in deciding the question. The publication incorporates many letters from "those who know"—from the men who are selling and riding motor bicycles.

WARNING THE PUBLIC

How an Aggressive Agent Advertises to the Help of the Whole Trade.

Fred T. Merrill, the Portland (Ore.) dealer, not only uses generous advertising space in his local papers, but he knows how to use it. He often throws dignity to the dogs when he has a point to make, but when he does it is not often that he fails to hit the target.

Merrill has no love for bargain-counter bicycles or fly-by-night dealers, and some of his ads, dealing with those subjects are in the nature of "editorials" that cannot but open the eyes of the public and improve the tone of the retail trade. Here, for instance, is a recent "warning" which he boldly publishes in his space in the Portland papers:

"Cycling-riding public, beware!!

"Do you want cheap-john bicycles?

"If so, we can get them for you, but will not carry them in stock.

"We are here to protect the bicycle interest, and not to ruin it.

"We get job-lot offers, and offers from cheap-john bicycle concerns in most every mail, telling us what we could do if we bought their bicycles at \$9 or \$10 each and sold them at \$14, \$16 or \$18 each, and how many thousand we could sell. We might do it for a few months, but where would we be the coming year?

"Here is a letter that we received from a job-lot dealer, who has handled good bicycles in his day, but who fell into the trap of selling cheap bicycles, and who has only an office in Chicago left.

"The United States bicycles that he now has to sell were once sold as a fine wheel at a high list price, and if their manufacturer had not gone to the wall no doubt some fly-by-night bicycle concern would now be selling them in Portland at a \$40 or \$50 list price, with a confidential discount, and a sub-agency given to every rider in order to get the wheels out quick before the purchasers got onto their game.

"Here is the letter from Mr. Maurer, and we will publish his address, so that some of these new dealers may lay in some of these bargains before the crop of suckers is exhausted:

"———, Chicago, May 21, 1901.

"Mr. Fred Merrill, Portland, Oregon:

"Dear Sir and Friend—I have about 150 U. S. Ladies' Bicycles, 22-inch frames, model 13 and 15. They were built in 1900, but finished this year. All clean, nice, bright goods; complete with rockaway saddles, adjustable bars, rubber pedals, tools and tool-bag. Will sell you a bunch of them for \$9 each, 2 per cent 10 days. If you prefer steel rims, will cost 50c. a pair extra. This would make an excellent wheel for export. If interested let us hear from you by wire. Yours respectfully,

J. C. MAUREK.

"A few model 14—24-inch frames. A few model 18 and 19—18-24-inch frames; 19-22-inch frames, with regular spoke hubs, regular chains, for \$10.50 each."

The Week's Patents.

676,519. Register. Curtis H. Veeder, Hartford, Conn., assignor to the Veeder Mfg. Co., same place. Filed Nov. 21, 1898. Serial No. 696,985. (No model.)

Claim.—1. A register comprising a totalizing register and a trip register, means for driving the totalizing register, a ring provided with internal and external gear teeth mounted concentrically with the trip register, said external gear meshing directly with the transmitting gear operatively engaging the first index wheel of the totalizing register, and a ratchet operatively connected with the first index wheel or ring of the trip register and engaging the internal gear teeth on said ring to drive said index wheel positively and permit independent forward movement thereof, substantially as shown and described.

676,523. Gas Engine. Marshall L. Wood, Montpelier, Vt. Filed Nov. 3, 1899. Serial No. 735,670. (No model.)

Claim.—1. In a gas engine, the combination with a cylinder, of a piston working within the same, inlet and outlet ports in said cylinder, the outlet port being of larger diameter than the inlet, a piston rod connected with the piston and having a plunger connected with its other end, a main casting connected with the cylinder, a guide for the plunger formed in the same, a plurality of pump chambers formed in the same, means for delivering the impelling fluid to the chambers, and means for carrying the fluid from the chambers to the opposite sides of the piston, substantially as described.

676,535. Device for Coupling Bicycles. Sterling Elliott, Boston, Mass. Filed Dec. 6, 1897. Serial No. 660,870. (No model.)

Claim.—1. The combination in a coupling for bicycles, of pivoted connecting bars or girders, and flexible spring connections extending diagonally between the ends of said bars or girders, substantially as described.

676,562. Elastic Wheel Tire. Jens H. Langgaard, Liverpool, Eng. Serial No. 56,168. (No model.)

Claim.—1. An elastic wheel tire composed of an annular sheath of india rubber and canvas and a core of solid cork segments, said segments being first saturated with linseed oil and afterward immersed in a saturated solution of alum and permanganate of potash substantially as set forth.

676,592. Motor Cycle. Michael E. Toepel, Frank B. Widmayer and Adolph Potdevin, New York, N. Y. Filed Aug. 31, 1900. Serial No. 28,653. (No model.)

Claim.—1. The combination in a motor cycle, of the reciprocating explosive engine, the threaded projection extending from a plate bolted or fastened to the bottom of the crank casing, the threaded plug secured to the projection from the bottom bracket of the frame, and the threaded coupling sleeve as and for the purpose described.

676,629. Crank Mechanism for Velocipedes. Jehu C. Moore, Brooklyn, N. Y. Filed Aug. 24, 1900. Serial No. 27,890. (No model.)

Claim.—1. In a crank mechanism for velocipedes, the combination with a crank hanger, of a bearing cylinder mounted adjustably therein and provided with eccentrically arranged bearings for the driving shaft, cranks having each a ringlike yoke mounted to turn on the said bearing cylinder, a shaft mounted in said bearing cylinder, slotted driving arms on said shaft, and roller studs on the respective cranks and engaging the slots in the respective driving arms.

676,733. Inflatable Tire. Benton V. Canfield, Indianapolis, Ind. Filed Oct. 4, 1900. Serial No. 32,062. (No model.)

Claim.—1. In a single-tube inflatable tire, a sheath forming the tire, overlapping edges of said sheath overlapping at the seat of said tire, one edge pressing inside of the other, means for locking said overlapping edges and a sealing tube between said overlapping sections as set forth.

DESIGNS.

34,653. Bicycle Frame. Harold Jarvis, Buffalo, N. Y. Filed May 18, 1901. Serial No. 60,943. Term of patent, 14 years.

34,675. Piston Head. Charles Perkes, Philadelphia, Pa. Filed May 15, 1901. Serial No. 60,411. Term of patent, 14 years.

The Week's Exports.

Antwerp—50 cases bicycles, \$1,125; 6 cases bicycle material, \$332.

Athens—13 cases bicycles and material, \$325. Azores—2 cases bicycles, \$76; 1 case bicycle material, \$19.

Bordeaux—1 case bicycles, \$32.

British East Indies—48 cases bicycles and parts, \$3,220.

British West Indies—35 cases bicycle material, \$1,233.

Copenhagen—93 cases bicycles, \$1,406; 66 cases bicycle material, \$1,920.

Cuba—3 cases bicycles and material, \$141.

Cairo—17 cases bicycle material, \$2,394.

Christiania—5 cases bicycles, \$134; 6 cases bicycle material, \$561.

Gothenberg—1 case bicycles, \$25.

Glasgow—9 cases bicycles, \$265.

Havre—93 cases bicycles, \$1,905; 78 cases bicycle material, \$2,840.

Helsingfors—3 cases bicycles, \$230.

Hamburg—25 cases bicycles, \$1,055; 16 cases bicycle material, \$482.

London—363 cases bicycles, \$4,851; 110 cases bicycle material, \$10,904.

Lisbon—1 case bicycle material, \$40.

Lausanne—78 cases bicycles, \$2,118.

Liverpool—32 cases bicycles, \$792; 3 cases bicycle material, \$890.

Manchester—83 cases bicycle material, \$185.

Malta—7 cases bicycles, \$319.

Mexico—1 case bicycles, \$55.

Oporto—4 cases bicycles and parts, \$195.

Odessa—3 cases bicycles, \$113.

Rotterdam—53 cases bicycles, \$1,442; 28 cases bicycle material, \$905.

Smyrna—2 cases bicycles, \$69.

Southampton—51 cases bicycle material, \$2,594.

Trieste—3 cases bicycles, \$115.

Said Fork was Thin.

Another British breakage suit case has been settled, this time in favor of the injured rider. A man named Cumisky purchased a second-hand Osmond, which the dealer guaranteed to stand "fast long-distance work on the road," and when the fork subsequently broke the owner was naturally wroth. He sued for \$250 damages, obtained a verdict, and now an appeal taken from this decision has been denied. It was alleged that one of the forksides was thin, and to this the breakage is attributed.

The Day's Chief Topic.

Where and how to spend the summer is a question to be considered by nearly everybody. If you are not interested, you should be, and if you are, consider New England, with its great wealth of mountains, rivers, lakes, seashore and historic spots.

In the heart of the Appalachian Range, the secondary range of America, which includes the famous White Mountains, are hundreds of places where one may go and enjoy the cool, quiet grandeur of the magnificent panoramic scenery, its grand precipitous rocks, its green fields and the beautiful silvery lakes sprinkled here and there like bits of broken mirror.

Think of the places where sports of all kinds may be enjoyed, including the popular games of golf, polo and tennis.

Leave the mountains and turn to the beautiful lakes and streams, or to the vast, grand ocean which forms the eastern boundary of New England; here boating, fishing, yachting and bathing are participated in more than in any other part of the world.

New England lacks not historically, but can boast of containing many relics of the early pilgrim settlers, as well as of the Indian and Revolutionary periods.

A valuable book containing a list of hotels and boarding houses, with their rates and accommodations, also maps, routes and rates of the Boston & Maine Railroad and connections, will be sent free to any address on application to the Passenger Department of the Boston & Maine Railroad, Boston, Mass.

Utilizes the Rider's Movement.

It will probably be a long time before a more original patent is taken out than one granted by the British Patent Office recently. In this invention the up-and-down movement of the rider of a bicycle, or the "bumping," as it is termed, is utilized as an aid to propulsion, the movement of the mechanism being regulated to suit the varying force of the bump.

The mechanism occupies very little space upon the bottom bracket. The motion is transmitted from a rod sliding within the seat tube to a ball clutch on the crank axle through the intervention of a pin working in a curved slot in a curved lever operating the outer ring of the clutch.

Quakers' Many Projects.

The Associated Cycling Clubs of Philadelphia has done wonders for cycling in the past, and it is not relaxing its efforts at this critical time. A road race recently promoted and heartily supported by the trade was a huge success. It is now proposed to follow it up by a big run to Atlantic City on July 14, in emulation of the monster events of some half-dozen years ago. In addition the dealers are talking of holding a coasting contest on some one of the numerous hills surrounding the Quaker City. Other events are likely to be arranged, consequent upon the encouragement the revived interest in cycling has given.

How to Coat Emery Belts.

A method of coating emery belts which has been followed with success in many works may be of assistance to those inquiring for information on the subject. Two operators are required, and the tools consist of a six or eight inch pulley and two sections of broom handle about eighteen inches long.

The emery—preferably hot—is held in a shallow box of suitable size, which is placed on a table or bench of such width that the operators may work from opposite sides. A support for one end of each of the sticks is provided in order to leave one hand of each of the operators free while applying the glue, which is done with a wide brush by one while the other feeds the belt around, thus making this operation a matter of a few seconds. The glue being applied, the sticks are grasped at both ends, the belt drawn taut, and the operator on the pulley end leans forward and brings the pulley down smartly into the emery, at the same time drawing it toward him, the operator on the other end, of course, following his motions, this being repeated as often as necessary to cover the belt. The weight of the pulley serves to imbed the emery in the glue better than if it were merely sprinkled on the belt.

The belts are then hung up till perfectly dry before using. These belts were about four inches wide, with about six feet length of surface, which was always coated at one operation.

Tire has Sheet Steel Springs.

The ill success of puncture-proof tires does not seem to daunt inventors in the least. One leaps into the breach as soon as his predecessor gives up the attempt to secure recognition for his pet hobby. From Wales comes the story of another tire, constructed with the familiar object and embodying all the old excellencies.

The invention will not, it is claimed, interfere with the perfect elasticity and resiliency of the tire, and will always prevent the tire becoming punctured or damaged. The appliance is made of the finest sheet steel cut into half sections about four inches in length. These half sections are made to work in and out of each other both in the centre of the tube and close to both sides of the rim.

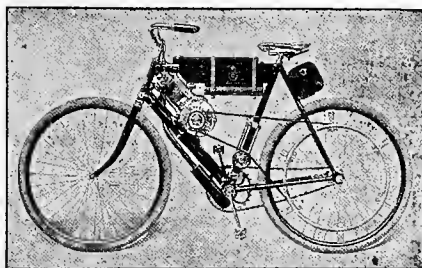
As the protector is of spring metal, these sections will work in and out both diametrically and circumferentially upon being submitted to the slightest pressure, and will act in perfect accord with the tube. Each of these half sections is put together covered with a piece of thin strong canvas, and then placed between the tube and tire. The edges of the metal are slightly rounded, and cannot possibly damage anything that they come in contact with. The weight is inconsiderable, and the protector may be used on any existing machine.

Was Victor in Dunlop Suit.

Once more rumor has it that capital is forthcoming to exploit the Wapshare tire, an English production of considerable merit. It has the distinction of being the only tire to withstand the assaults of the Dunlop Co., the dismissal of the latter's suit claiming infringement being a severe and entirely unexpected blow about a year ago.

**THE NIMBLE PENNY
IS EASILY YOURS**

When you handle
the AUTO-BI.



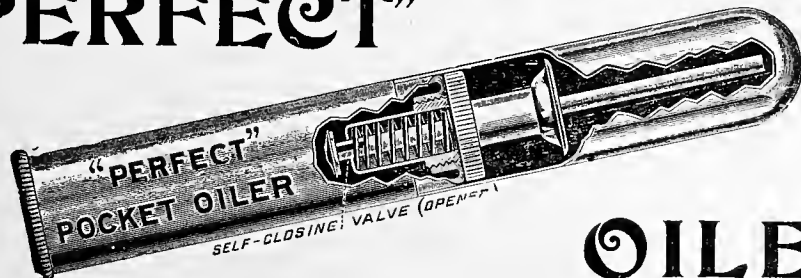
H. S. Brandt, of Norristown, Pa., under date of June 5th, writes as follows:

"AUTO-BI received, set up and run to beat the band. No trouble whatever to set it up and start, except I forgot and kept the plug in my pocket on the first trial. When I put it in the machine it went off like shot off of a shovel. As this is my first attempt to set one up and start it I feel very much pleased. I had an order for it if it was satisfactory, and after a trial spin by the party he rode up and left his check and rode off with the machine. Enclosed please find my second order for another AUTO-BI, which I want quick."

This shows the bicycle dealer how he can keep his business going during the months that otherwise would be dull.

E. R. THOMAS MOTOR CO., 106 BROADWAY, BUFFALO, N. Y.

We also make the best Tricycles and Quads in the land, and are selling lots of them. It doesn't take all your money to buy them.

"PERFECT"

25c.

OILER.

Used by leading makers of high-grade bicycles. The only oiler that regulates supply of oil. CANNOT LEAK. We make cheaper oilers also, of unequalled quality.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.

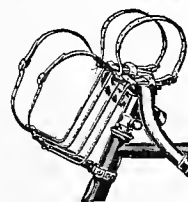
**WOLFF-AMERICAN
BICYCLES.**

STEARNS BICYCLE AGENCY, - Syracuse, N. Y.

Sheet Steel Bicycle Parts.

All Kinds of Metal
Stamping.

THE CROSBY COMPANY, Buffalo, N. Y.

**LAMSON AND PETERSON
LUGGAGE CARRIERS**

The most
serviceable made.

MEGQUIER & JONES CO., Portland, Me.

INDIANA CHAIN.

EASIEST RUNNING
CONSEQUENTLY BEST.



Send 26 cents for Fob. \$1.50 per dozen, on card.

INDIANA CHAIN CO., INDIANAPOLIS, IND.

**THERE'S REAL COMFORT
IN THE REEVES****Ideal Spring Seat Post.**

It relieves all jolts and jars, and converts any Bicycle, new or old, into a Cushion Frame. Fits any wheel. Sent prepaid to any address on receipt of \$1.75. Money back after three days' trial if you want it. Send size of present post. D. E. ORVIS & CO., 71 E. Genesee St. Buffalo, N. Y. Reference, Buffalo Commercial Bank.

Dealers send for Circular and Wholesale Price List.

**FAUBER PERFECTION
HANGER.**

Unequaled in any of the Points which make
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WINCHENDON	18.00	14.50	10.50
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ATHOL	16.90	13.70	10.45
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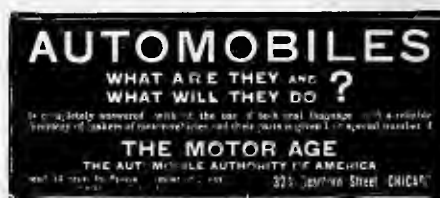
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The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., July 4, 1901.

No. 14

KEIM WILL FIGHT

Report That he had Compromised Bottom Bracket Suit Proves Erroneous.

In the Bicycling World of June 20 it was stated that the suit of the American Bicycle Co. vs. John R. Keim, involving the Smith bottom bracket patent, had been settled out of court. Mr. Keim was stated to have been given special terms, and in consideration thereof had taken out a license and would pay royalty.

This information was accepted in good faith, but it develops that the several statements made were without foundation in fact, and that they grew out of a lawyer's confusion of two suits, in which the A. B. C. and Mr. Keim were involved. The Bicycling World's informant was a party to the litigation, and the information coming from such a source, it was not thought that error was possible, and it was accepted without further question.

It transpires, however, that a most undeserved and regrettable wrong was done Mr. Keim. The case which was settled out of court was the Copeland handlebar patent, No. 568,786, of July 20, 1897, owned by the A. B. C., on which suit had been brought by the latter at the instigation of a third party, with whom Mr. Keim formerly had dealings, but with whom he had had a falling out. The bottom bracket patent was not involved in any way, but the legal gentleman concerned got the two confused, and in this way gave rise to the publication of the statement regarding the settlement of the bottom bracket case which had no foundation in fact.

Mr. Keim himself states that he has taken no license from anyone, and that he intends to fight the case to the bitter end—which will be pleasant news to those who know Mr. Keim, and who, knowing his nature, were nonplussed by the alleged news of his compromise.

Served Bill of Complaint.

A bill of complaint has been served by Hey & Parsons, of Syracuse, N. Y., in the action brought in the United States Court by John Ziegler and Henry C. England, of Reading, Pa., against the Reed & Curtis Machine Screw Co., Worcester, Mass. The action is to restrain the manufacture and sale of the E-Z-Y coaster-brake. It is claimed that the E-Z-Y brake is a substantial imitation of the plaintiff's Wyoma brake and infringes the patent rights of the plaintiffs.

Comes from Denmark to Buy.

Chr. Gottschalk, of Copenhagen, one of Denmark's best known importers of American cycles, parts and sundries, is due to reach New York between the 1st and 15th inst. While here he will stop at the Broadway Central Hotel. From the 15th to the 25th he will be in Buffalo, and from July 25 to August 10 at the Palmer House, Chicago. Mr. Gottschalk is here on a purchasing tour.

American Goods Help Gamage's Profits.

According to the annual report just filed, A. W. Gamage, Ltd., the widely known London jobbing house which deals so largely in American cycles and cycle sundries, earned a gross profit of £42,698 in the twelve months ending with January last, the net being £7,977. The turnover on the London business alone amounted to £12,183.

Morrow for Chainless Coming.

While the fact that the Eclipse Mfg. Co. has a Morrow coaster-brake for chainless bicycles in reserve has been known to quite a few in the trade, the news has just been made public property. It will be ready in time for next season's trade, and that it will sustain the Morrow reputation goes without saying.

May go to Brockton.

It is possible that the Chicago Handle Bar Co. will remove to Brockton, Mass. B. F. Muehler, of the concern, was in Brockton last week, and he stated that he was looking up a site for the manufacture of the firm's product.

GETS HIS INSURANCE

Companies Refused Payment, but Rosenfeld Goes to Court and Wins the Suit.

After a wait of nearly two years, Mortimer C. Rosenfeld, proprietor of the Cleveland Cycle Fittings Co., is in a fair way to obtain compensation for the fire that destroyed his plant at Cleveland, O.

At Buffalo, N. Y., last week, in Part I of the Supreme Court, Judge Hooker handed down a decision granting judgments aggregating nearly \$40,000 against twenty insurance companies in different parts of the country. When the factory of the Cleveland Cycle Fittings Co. burned down Rosenfeld filed claims with the insurance companies referred to for the amounts covered by his policies with them, the total reaching more than \$36,000. The companies declined to pay, and Rosenfeld was obliged to bring suit against them.

As stated above, he has now won his suit. The judgments given run from \$600 up to \$3,000, most of them, however, ranging between \$2,000 and \$3,000.

Early Closing in Worcester.

Evening closing is being discussed by Worcester (Mass.) merchants. L. C. Havener, the well-known bicycle dealer, is circulating a paper binding bicycle and sporting goods dealers to close their stores on four evenings each week and also on Friday afternoons during the summer. Most of the proprietors and managers are agreeing to this proposition, which will likely go into effect the second week in July. Havener says that he will close all evenings except Monday and Saturday whether the other men do or not.

C. T. P. A. Meets To-morrow.

The Cycle Trades' Protective Association is due to hold an important meeting in Buffalo to-morrow. Matters of considerable moment will come up for discussion.

MAY'S GOOD RECORD

Slight Decrease in Export Total, but Some Strong Advances in Many Directions.

While the total value of the cycle exports for the eleven months of the fiscal year ending with May is still nearly \$1,000,000 to the bad, the month of May itself gave small ground for faultfinding. By comparison with May of the previous year, the loss, as losses go nowadays, was relatively inconsequential. England's purchases fell below its record for 1900, but this shrinkage was more than made up by the gains throughout Europe. It is the first month in a considerable period that Europe, including even Germany, showed an increase of orders. The heaviest loss, naturally enough, is in British North America. The Trust's withdrawal from the Canadian market, due to its compact with the Canadian "combine," makes the shrinkage a mere matter of course. Argentina having filled itself to the full during 1900, no improvement was expected, and the decline in that direction was discounted in advance.

In the matter of increases Japan easily holds the post of honor. Africa, Australia, the West Indies and even China are also on the right side of the book.

The record in detail follows:

Exported to—	May—		Eleven months ending May—		
	1901. Values.	1901. Values.	1899. Values.	1900. Values.	1901. Values.
United Kingdom.....	\$51,794	\$45,853	\$801,669	\$420,376	\$365,392
France	13,340	28,003	438,355	220,052	154,877
Germany	33,448	43,639	1,056,280	391,609	186,708
Other Europe.....	82,632	85,277	1,315,255	668,750	464,548
British North America.....	87,095	52,612	538,372	352,988	282,954
Central American States and British Honduras	21	564	5,602	2,584	5,010
Mexico	1,948	2,404	46,082	23,076	19,217
Santo Domingo.....	28	39	253	300	481
Cuba	4,391	672	15,031	147,507	13,000
Other West Indies and Bermuda.....	4,807	5,917	58,070	48,239	48,536
Argentina	18,854	375	204,051	158,307	24,040
Brazil	1,386	229	52,006	26,292	9,312
Colombia	56	68	8,288	6,269	612
Other South America.....	3,454	2,380	49,910	61,118	30,862
Chinese Empire.....	2,365	2,575	22,595	25,610	15,397
British East Indies.....	6,833	5,761	139,913	101,027	52,455
Hong-Kong	888	938	8,690	7,886	8,981
Japan	18,025	42,964	110,351	207,334	225,814
British Australasia.....	19,864	21,802	239,626	229,977	194,376
Philippine Islands.....	2,318	807	575	22,427	66,545
Other Asia and Oceania.....	144	595	30,557	38,948	22,411
Africa	3,420	6,369	181,086	57,827	87,723
Other countries.....	125	.....	616	306	255
Totals	\$366,143	\$349,843	\$5,365,133	\$3,272,524	\$2,279,399

When Coaster-brakes Score.

During extremely hot weather the coaster-brake is particularly appropriate. It is the movement of the legs that makes the rider warm, even more than the force put into the thrust. Consequently, when the rider is able to coast he experiences considerable relief.

"Defects (in motorcycles) and How to Remedy Them." See "Motorcycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York.

Suggested by Bottom Bracket Suits.

"I'm awfully glad that John R. Keim has not compromised with the Trust on the bottom bracket suit," said a well known figure in the trade, when told that the report that the Buffalo maker had compromised was an unfortunate error. "I always thought Keim was a fighter, and the report that he had surrendered and taken out a license almost staggered me.

"While I don't pretend to know anything about patent litigation, it does seem to me that so far as the parts makers are concerned, the litigation opens up some interesting problems. For instance, it is no secret that the A. B. C. as late as this year purchased thousands of bottom brackets from independent makers. While I know what compounding a felony means, I do not know if there is such a thing as compounding a patent suit, but if there is, it looks to me as if the Trust's purchase and use of these alleged infringements of their bottom bracket is mightily like compounding their own case.

"Again, and while I do not recall the exact language of the Smith patent," went on the speaker, "if my memory serves me right, it covers only a bottom bracket when brazed into a frame and made an integral part thereof. As the independent parts makers make only the bottom brackets, and do not braze them into the frame, it seems to me

this opens another interesting channel. I imagine that these points have occurred to those most interested, and if I were a lawyer, it seems to me that I could make considerable use of them."

Absence of Rain Brings Joy.

Bright, sunny weather has been the rule rather than the exception in England during the greater part of the season, and a small sized boom has resulted. The trade is, consequently, in a much more hopeful mood than customary.

JUDGMENT WAS FRAUDULENT

Therefore, Suit Could be Brought to Have it Set Aside.

In an action brought by Allen J. Gray against the Richmond Bicycle Company it has been held by the New York Court of Appeals that a judgment in another State against the maker of a promissory note obtained by the payee is a bar to an action in this State against the maker by a transferee after maturity, unless the payee was induced to secure the judgment by the fraud of the maker.

It appeared that the president of the defendant company, while in possession of its property as agent under mortgages for the benefit of certain creditors, wrote to the payees of certain notes apparently to induce them to place their notes, not yet due, in the hands of certain attorneys recommended by him, so that judgment could be taken upon them under the terms of the mortgage, which would be a ratification of such mortgage. He made the misstatement that the assets were sufficient to pay all preferred claims, and omitted to state that the mortgage, including the payees' claim, was second to another given at the same time.

Their claim, he also failed to state, was by the terms thereof subject to the prior payment of all other mortgages, and that the attorneys recommended were acting for the first mortgagee, who would derive the greatest benefit from the ratification of the mortgage. There was property in the State of the payees' residence which might be attached to the loss of such maker and the other preferred claimants, if such payees did not come in under the mortgage.

The question whether the judgment was procured by fraudulent representations and concealments was, the court holds, one for the jury. Relief may be obtained from the judgment, if fraudulent, the court says, without application to the courts of the other State, and it cannot be indirectly enforced as a bar to the action, since a court of this State may, where it has jurisdiction of the parties, determine the question whether a judgment between them, rendered in another State, was obtained by fraud, and, if so, may enjoin the enforcement of it, although its subject matter is situated in such other State.

Repair Outfits Charged For.

Repair outfits cut much less figure now than formerly. Riders who repair their own tires want something special in the line of outfits, and those who depend on the regular repairers care little or nothing about such things. There are even tire makers who have ceased to furnish repair outfits gratis.

"The Motor: What It Is and How It Works." See "Motorcycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York.

TWO FAIRS COMPARED

Pan-American Displays Recall World's Fair Exhibits and Suggest a Moral.

The scant representation of cycle manufacturers at the Pan-American Exposition was under discussion. Regret was very generally expressed that such a poor showing, in point of numbers, should be made, and it was commented upon that even the automobile industry, although so young, was doing so much better.

"It is to be hoped that the exhibits will be better looked after than they were at the World's Fair at Chicago," remarked one of the tradesmen. "The least those in charge can do is to look after their exhibits properly and give people the impression there is some life in them.

"I well remember the general impression of shiftlessness and neglect the Chicago show left on my mind," he continued. "There were exceptions, of course. Most of the American stands were kept clean and shipshape, at least. Some of them had attendants who were on hand all the time the building was open to visitors; but this cannot be said of all of them. I visited the show rather late, and this may have had something to do with it. This was about the middle of August, and the exhibitors may have become tired of sticking closely to business. Anyway, there was something the matter.

"But it was at the foreign stands that the worst showing was made. At that time—1893—you know, British bicycles were still a factor in this market. The decline—which was to foreshadow their extinction, although few people understood it at the time—had set in the year before, and during the Fair the tide was setting very strongly in this direction. Nevertheless, British machines were still formidable competitors of the home product, and their makers had gone to considerable expense to make a good showing.

"It may seem like exaggeration, but it is the simple truth that during a number of visits to the bicycle exhibits I never saw a single person in attendance at the British stands. If any one wanted information regarding them he had to get it from the catalogues which were sometimes there, from an examination of the machines themselves or by managing in some way to secure an interview with some one in charge. You can readily understand how much these methods must have commended themselves to probable purchasers.

"But this was, although the most serious not the most aggravating way in which the neglect was shown. One would imagine that the exhibits would be looked after to the extent of keeping things clean and neat. This could have been done by a porter or other attendant in the building, and at trifling expense.

"Perhaps it was because this duty was assumed by those in charge of the exhibits that it was not performed. The machines were covered with dust, the nickelling was dull and uninviting, and even the tires were not pumped up. Now, unless there was something the matter with a tire it should remain inflated for a week or two; if it would not hold air there was so much the less reason for permitting it to remain in view. Yet it is a fact that I saw tires that were completely flat, and the entire machine looked as if it had received no attention whatever for weeks.

"About the worst case of all was the exhibit of a very celebrated English concern, then represented by an equally famous English racing man, who went to Chicago to combine business with pleasure, the latter being a racing trip. He made out much better on the track than at the Fair.

"All this made an indelible impression on me, and it is for that reason that I hope that the Buffalo exhibits will be in marked contrast to those at Chicago. Being so small, a slovenly appearance would complete the impression that the cycle business had in truth gone to the dogs."

Don't all Appear at Once.

"Mr. Schwab, could you recommend me a good business man for a manufacturing plant who would be willing to devote his time to the concern and put forth his best efforts in exchange for a salary of \$25,000 per year?"

This was the startling question addressed this morning at the breakfast table in the Waldorf-Astoria to Charles M. Schwab, of Pittsburg, president of the steel combine, and himself credited with receiving a salary amounting all the way from \$50,000 to \$4,000,000 per year. The man who asked the question was Colonel Pope, of the Pope Mfg. Co. A year ago the question would have been laughed at as a great joke. Very earnestly and in all seriousness the young Pennsylvanian replied:

"I am very sorry, Colonel Pope, but I cannot. In fact I am looking for about eight such men myself, to whom I would be willing to pay similar salaries."

The waiter who was breaking the eggs was the only member of the party who displayed any excitement over this remarkable heart-to-heart talk.—(New York correspondence of Pittsburg Press.

Lozier's Book About Motors.

To anyone interested in the subject of gasoline motors, the catalog of the Lozier Motor Co., Plattsburgh, N. Y., should prove a mine of interest and information. While it deals mainly with marine motors, the Lozier people are also making engines for motorcycles, and as the general principles of both are the same, the book is of interest to all. It is a magnificent creation of forty-eight pages, printed on enamelled paper and with pictures that almost speak, so clearly do they show the "insides" and the operation of the motor.

TOO MUCH PARIS

Exporters' Neglect of Other Cities Cause of Diminished Trade, Says Britain.

Writing of the decrease of American cycle exports in France, Consul Brittain, at Nantes, in response to the *Bicycling World's* inquiry, says:

"As one means for remedying this condition I would say that the oft-repeated advice of American consuls and of dealers in American wheels outside of Paris should be taken more seriously. The merits of the leading American wheels are well known in France, but if the complaints concerning the handling of these wheels are well founded it is little wonder that the sales have decreased.

"Instead of placing the wheels in the hands of a Paris agency, which retains a commission, goods should be sent direct to responsible dealers in all the leading cities in France, at prices that would enable them to be retailed at 250 to 300 francs (\$48.25 to \$57.90). If they must pass through the Paris agency, the retailer in the other cities should be given the wheels at a much lower price than at present. The idea that the superiority of the American wheel is a sufficient inducement to cause Frenchmen to buy it is a great mistake.

"In consequence of the increased use of automobiles in France, special inducements should be held out to those who are favorably inclined toward American bicycles. A leading dealer in this city showed me a number of wheels fitted with uneven French tires, instead of the neat tires usually found on American machines. He says the tires are placed on the wheels in Paris, and that it is not possible for him to buy American wheels such as he wishes to sell, unless he takes them equipped with these inferior tires. He also claims that foreign brakes are being placed upon American wheels. It is like a man ordering a pair of fine boots upon which are fastened cheap, uneven soles. Place American wheels in the hands of the retailer, enable him to sell them at a reasonable price with a fair profit, and furnish him with American supplies, so wheels may be repaired when necessary, and the trade in France will increase."

Must Have Their Own Tires.

The two English racing men now in this country, Jenkins and Gascoyne, are mounted on American bicycles, but the latter are shod with foreign tires. The tires attract considerable attention among those who learn of their trans-Atlantic manufacture. They are a combination of single and double tube, being cemented to the rim and having an inner tube that can only be got at by loosening the outer cover, which is closed and cemented, resembling, to outward appearances, a single tuber.

LAMPS WORRY HIM

Lazy Man Admits They're All Right, but he Seeks Something Else.

"Lamps are an unmitigated nuisance under some conditions," remarked the indolent rider. "Of course, I know what you are going to say, and I'll admit right at the outset that in nine cases out of ten the trouble is all with the user. Now, we'll start out with that admission.

"Take my own case, for example," he continued. "I've 'monkeyed' with lamps until, to tell the honest truth, I'm about sick of them all. Mind you, I don't blame the lamps. There was nothing particularly the matter with them—at least with most of them—but I heartily wish I might never see another one. If it weren't for the fact that I know I would regret it I would chuck the whole collection in the river," pointing to a large and varied assortment of the despised light givers.

"There may be months at a time—especially when the days are long—when I haven't the slightest use for a lamp. I seldom ride at night. That alone lets me out on the lamp question, except on rare occasions. But when one of the latter comes I always find myself 'up against it,' and it makes me pretty hot.

"We'll suppose that one of these occasions

arises, and I want a lamp—not for my own sake, but to keep some clumsy beggar from running into me. I go to my choice collection of these articles and look them over.

"Here's an electric lamp, to start with. It gives an elegant light and is no trouble whatever. The only objection to it is that it's out of order. It worked all right for awhile, and in due course I had it recharged, but it's never been any good since. I've sent it to the makers until I'm tired, and I guess they are too. The trouble was with the batteries, of course. So I pass that by.

"Here's the next one, an acetylene gas lamp. I used to watch the brilliant light made by these lamps until I could not be happy without one. It worked all right, but—well, life is too short, for me at least, to give the proper attention to a lamp of this kind, and without that they won't give good results. I know riders who would not have anything else, and are perfectly delighted with acetylene lamps. But they either ride more at night than I do or they are less averse to work than I am.

"So it comes down to this, that I have to fall back on my oil lamps on the infrequent occasions when I want to take a ride at night. I've got two or three of them, accumulated during the last half dozen years, and I must say that a dirtier, more neglected aggregation would be hard to find anywhere.

"I intend to get at them some day and give them a thorough cleaning and put them

in order. They need new wicks and fresh oil, and, with a little elbow grease added, they will be all right. But it's long odds that the fitting time will never come, and that I'll make requisition on one of the lot the next time I want a lamp. If so, it is equally certain that they won't give the best results. It could hardly be expected of them, of course, but that does not alter the fact.

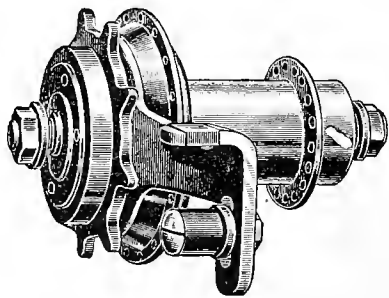
"Maybe some day I'll get up enough energy to tackle the lamp problem in the right way; and if I do, I'll solve it. But the fact remains that, with lamps as with pretty nearly everything else, you have to give them attention if you want them to work properly."

How Curtis Combats Mail-Order Bicycles.

G. H. Curtis, of Hammondsport, N. Y., writes that large numbers of mail order bicycles are being shipped into his part of the country every day. Like a live merchant he is, however, making an intelligent fight against them. He has enlisted the interest of the local papers and they are publishing articles on the subject that cannot but aid in opening the eyes of the country folk.

Mr. Curtis's letter head proves, however, that he is pushing the sale of one of the bicycles made by the concern that also sells to the mail order houses at the cut throat quotations that make mail order prices possible, and that undermine the trade of the legitimate dealer.

Here's the UNIVERSAL Coaster Brake.



There is none other quite so good.
It has features all its own.

Write for Catalog and Quotations

Universal Coaster Brake Co., Office 318 Ellicott Square Buffalo, N. Y.

Brandenburg Bros. & Wallace, Selling Agents,
New York and Chicago.

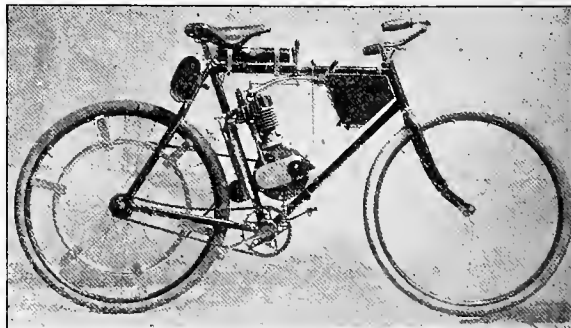
WHAT'S THE USE of Standing Astride the Fence?

You know what the proverbs say: "The man who hesitates is lost"; "Faint heart ne'er won fair lady," etc., etc.

GET OFF THE FENCE!

If there's "nothin' doing" in your locality get off the quicker. It's time you interested yourself in motor cycles. You can't do it too soon, and you won't be able to find so good a motor bicycle as

THE MARSH.



It will draw crowds to your window and fill your store with probable buyers. If you know how to talk, the rest is easy.

The Marsh has features all its own; you can't afford to overlook them. It will prove an invigorating

TONIC FOR LANGUISHING TRADE.

Our catalog is interesting; our offer to agents is full of magnetism. They may be the means of getting you off the fence. Write us.

MOTOR CYCLE MFG. CO., BROCKTON, MASS.

THE BICYCLING WORLD
FOUNDED 1877
and **MOTOCYCLE REVIEW**

In which is Incorporated
"The Wheel" and the "American Cyclist."

Published Every Thursday

By

THE GOODMAN COMPANY,

123-125 Tribune Building.

(154 Nassau Street)

NEW YORK, N. Y.

TELEPHONE, 2652 JOHN.

Subscription, Per Annum [Postage Paid] **\$2.00**
Single Copies [Postage Paid] . . . **10 Cents**
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Invariably in Advance.

Postage stamps will be accepted in payment for subscriptions, but *not* for advertisements. Checks, Drafts and Money Orders should be made payable to THE GOODMAN COMPANY.

Entered as second-class matter at the New York, N. Y., Post Office, September, 1900.

General Agents: The American News Co., New York City and its branches.

Change of advertisements is not guaranteed unless copy therefor is in hand on SATURDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should

Address us at P. O. Box 649.

NEW YORK, JULY 4, 1901.

Meeting Mail-Order Competition.

After all, the prominence of the mail-order bicycles and other wares is a tribute to the power of advertising.

The mail-order game or business was founded on belief in advertising, and is sustained by substantial proof that a combination of the power of advertising and the power of price is irresistible and leads to fortune, even though the advertising be conscienceless advertising and the goods advertised be questionable goods.

MUST FIGHT FIRE WITH FIRE.

The growth of the mail-order game has been aided materially by the supineness and shortsightedness of the very people most affected—the reputable manufacturer, the jobber and the country merchant. Each of these wails and bewails the encroachment of the mail-order houses; they fume and

fret, talk and threaten, and—do nothing, or substantially nothing.

They use willow switches in trying to beat out a prairie fire under headway when the fire should be fought with fire—by starting a blaze which shall burn the ground toward which the other fire is directed.

EXTENT OF MAIL-ORDER SALES.

Let the matter of bicycles, with which we are directly concerned, suffice to illustrate the conditions of things.

Despite the diminished demand of the past three years, the mail-order houses between them have sold approximately 150,000 bicycles; at an average of \$20 each—a fair average—this means that \$3,000,000 have slipped annually between the fingers of the legitimate trade.

NEXT YEAR'S SUPPLY ALREADY BOUGHT.

The immediate future holds small hope that mail-order competition will lose any of its force. Owing to the rain, the current year has not been a particularly favorable one for the sale of bicycles, but, notwithstanding, one of the mail-order houses has within the last three weeks placed an order for 50,000 bicycles for next year's delivery—an order accepted at cut-throat figures by the Jekyll and Hyde of the cycle trade—the one that shouts loudest of its guarding of the dealers' interests and then proves it (sic) by courting and truckling to the mail-order merchants like a sucking dove.

WHERE MAIL-ORDER BICYCLES ARE SOLD.

Why are the mail-order houses able to effect such a volume of sales during even "off" years?

The question suggests itself, and is a leading one. It cannot, however, be intelligently discussed until this one is answered: Where and to whom are the mail-order bicycles sold?

The mail-order journal which we quoted last week unintentionally aided the reply when it rated "the agricultural and religious 'suckers'" as "the best customers of the mail-order 'profesh.'" Even without this testimony, it has long been evident that most of the mail-order bicycles have been sold in

the country districts—the small and sparsely settled communities, which the Bicycling World has again and again (the last time only last week) urged the cycle trade to cultivate more assiduously. Taken haphazard from the bicycle catalog of one of the conscienceless mail-order houses, we find testimonials from such places as Oran, Kirk, Karner, Pike, Barton, Minaville and Mooers, in New York; from Otway, Glandorf, Breakman, Dibert and Compher, in Ohio; from Fertility, Comly, Cold Creek, Scot Run and Strawberry Ridge, in Pennsylvania. The publication proves sales in hundreds of similar places in every other State in the Union—places that are unknown to the average merchant, and that do not even appear on the maps in his possession. Not all of the mail-order sales are, however, made in these backwoods communities. The catalog in question bears witness that mail-order bicycles are sold everywhere, in city and town as well as in the crossroads settlement. It is the latter, however, that is the backbone of the mail-order movement.

HOW TO CULTIVATE COUNTRY TRADE.

How can the manufacturer cultivate the country districts?

We realize full well that his travellers cannot adopt the methods of the itinerant tinker or census agent and visit every railroadless dot on the map. The items of time and expense and the possible results forbid it.

How, then, do the mail-order houses reach such districts?

First by advertising, then by catalogs and circular letters. The mail-order people appreciate that an ad. travels where no "drummer" approaches, and they are persistent. They "follow up" every inquiry—not once, but with a succession of circulars. The average manufacturer or merchant sends the catalog that is asked for, and may or may not forward the inquiry to his nearest agent, who may or may not see the inquirer. When he does see him he too often talks over the farmer's head, and because he cannot sell him a high-priced bicycle he rates him "no good" and sells him nothing. The mail-order house then reaches out and gathers in the

order at the price the farmer desires to pay. The dealer curses his luck, pities the farmer and bewails the state of affairs. Pity has no place in the mail-order category.

The fault in the methods of what may be termed legitimate merchandising is distributed, as we have stated, between manufacturer, jobber and dealer.

The fault common to all is the failure to fully appreciate the power of advertising and the value of printer's ink generally.

PRINTER'S INK THE MAIL-ORDER MAGIC.

The manufacturer or jobber selects the high-class mediums—the expensive magazines and weeklies. He sniffs at the cheaper publications which reach the agricultural classes. The mail-order man sniffs at nothing and cuts his garment according to his cloth. That is to say, he uses not only the high-class mediums, but the middle-class publications and the agricultural papers as well, and while the manufacturer or jobber employs high-sounding platitudes and relatively high prices in his advertisement the mail-order ad. is framed for one purpose—to bring inquiries. All mail-order houses carry several bicycles at differing prices, but they know the power that price exerts on the average mortal, and it is the price of their cheapest bicycle that they advertise in the largest type. It catches the eye and brings the inquiry. Then is sent the catalog adroitly picturing the beauties of the higher-priced mounts. Attractively worded circulars and circular letters follow the catalog, and each letter is full of look-out-for-the-other-fellow warnings.

If the inquirer ever thought seriously of purchasing, mail-order people leave no stone unturned to obtain his order. If his request for a catalog was prompted by unshaped or half-shaped inclination, the mail-order urgings are well calculated to develop it to the purchasing point.

FAULTS IN MANUFACTURERS' ADVERTISING.

Let us consider the methods employed by those outside the mail-order field. Glance at their ads. in the costly magazines. Beautifully illustrated are some of them! "That's a pretty ad.," says the magazine reader as he looks at it. Then he reads a glitteringly general statement or notes a price, neither of which is calculated to arouse the curiosity or excite the inquiry of a Fiji islander, much less that of an enlightened American. The wonder is not that such ads. bring requests for catalogs, but that they bring as many of them as they do.

WHEREIN CATALOGS ARE LACKING.

And the catalogs! What eye-pleasing picture books most of them are, but how lacking in the argument and information that sharpen interest and shape conviction! Are they accompanied by typewritten circulars appearing like a personal letter addressed to the recipient? Are they "followed up" by other letters of the sort calculated to "draw on" a possible purchaser? Do they ever explain to or warn the latter against the lies and frands of the mail-order houses as the latter warn one against the other? There may be such catalogs and such systems of "following up," but we have yet to learn of them. To the best of our belief, until the *Bicycling World* turned the light of publicity on the mail-order bicycle, it has been suffered to pass unchallenged other than by word of mouth. If ever a request for a catalog has been followed up by other than referring of the request to the agent from whose town it came, we have yet to hear of it. The mail-order people, on the other hand, appreciate thoroughly that every inquiry represents a possible—aye, probable—buyer, and with the fact ever in mind they act accordingly. If the inquirer will not purchase a high-priced bicycle they "try him on" with a low-priced one.

THE DEALER'S METHODS.

So much for the methods of the manufacturer. Now let us turn to those employed by the dealer. But—well, having turned to them, can you find that he really employs anything that deserves the dignity of the term "method"? Let us see! Yes, he does place his bicycles in a row on his store floor, and he may have one or more in his window and may keep them there from one month to another. He also probably carries in his local paper an ad. reading about like this: "John Jones, Hullabaloo high-grade bicycles, \$75, \$50 and \$40. Also sundries and repairs."

"JOHN JONES," THE COUNTRY MERCHANT.

Having done all this, John awaits the rush of buyers that never comes. He has but the vaguest appreciation of the value of printer's ink or of the real mission of advertising. The fact that every one in his town knows him and knows that he sells Hullabaloo bicycles does not suggest to him that his ad. should convey some other information or make some other point. The manufacturer forwards him an inquiry from a resident in his town, and Jones, he sees the man, tries hard to sell him a high-grade Hullabaloo long

after it is plain that the man wants something for about \$20. John decides that "that fellow is a fool," and when the fellow buys a mail-order bicycle he "feels sorry" for him and "sees his finish."

"JONES" AS A "KNOW-NOTHING."

In his vague way John knows something about mail-order bicycles. Like as not, the editor of the *Weekly Clarion* or the editor's son is riding one, taken in part payment for an ad. in that paper, which is in close proximity to the one for which Jones himself pays good money. The fact that he and the other country merchants might reasonably rise and join in a protest to the editor never occurs to him. Jones knows that the mail-order bicycle is a "bum wheel"; intuition tells him that; but he knows nothing about the frauds practised in marketing it, nor of the gross lies employed. He doesn't need a trade paper to keep him posted about these matters. The idea of paying \$2 per year for the purpose doesn't appeal to him. The fact that J. Pierpont Morgan has purchased the Shelby Tube Works or that the Trust is trying to throttle the Regal bicycle, or that the Royal Motor Works has brought out a new motor bicycle, or some one else a new tire or lamp or luggage carrier, is a matter of indifference to him. He may hear about it "some time or other," or he may never hear of it; he cares little. The fact that the trade paper gives him the very information he requires about his advertising or in his fight against the mail-order bicycle is as nothing. He thinks he does, but he simply does not know how to fight it. It is easier to wail and lament than to pay out a dollar or two. He does not appreciate that he can use his advertising space in the local paper to expose the tricks of the mail-order game; he does not realize that there are people who simply will not or can not pay more than \$19.99 for a bicycle, and that he should give them to them when he finds they will have nothing else; he does not know what "following up" a prospective customer means. If he ever writes a letter it is to the factory. If he ever had a circular printed it was a cheap handbill or dodger printed in the biggest type he could obtain. The instances could be multiplied, but these will suffice.

THE JONESES TOO NUMEROUS.

"John Jones," the bicycle dealer, and his fellow country merchants are of a kind, and are themselves mainly to blame for any discomfiture and loss of trade that mail-order

competition causes them, and until they awaken there is small hope for them.

We do not mean to say that Jones represents the entire retail trade, but we do mean to say that the Jones type is in a too numerous majority, and we say it regretfully. If anything awakens them, it will be the spread and increasing keenness of mail-order competition. We have reason to believe that our efforts in that direction—that our exposure of the mail-order game has accomplished some good, and we pledge ourselves to do more rather than less.

WHAT MANUFACTURERS MAY DO.

The bicycle manufacturers themselves can further the end not a little. They cannot well suffer three millions of dollars to be expended for bicycles without an effort to obtain more of it. This requires that the agricultural classes and country districts be cultivated. This can be accomplished in several ways. The more reliable and energetic agents might have certain territory allotted them, with power to appoint sub-agents even in crossroads villages and towns, and with the understanding that they are to "drum" the territory regularly. The manufacturers should try the agricultural and religious papers for a time—those, as mail-order people affirm, are the fields in which they angle for "suckers"—and use their advertising space for not only bringing inquiries, but for educational purposes, i. e., for exposing the tricks of the mail-order people, warning purchasers against the "sharks" who claim to be manufacturers and who are not, and who sell unknown bicycles under well-known nameplates, etc. Some dignity can be sacrificed in consideration of the good that will be accomplished. Manufacturers should institute some thorough system of "following up" inquiries, either from headquarters or by circular letters supplied to agents. Manufacturers' catalogs should contain fewer platitudes and more information and argument, and should enlighten prospective buyers as to the pitfalls and tricks prepared for them by the mail-order institutions; agents also should be similarly informed.

DEALERS MUST AWAKEN AND "FOLLOW UP."

The dealer on his part should brush up his wits and use to better advantage the brains God gave him. He must not be content only to live in Podunk. He must realize that it pays to keep posted, and that it will ever be so. He cannot afford to stand still. He must be informed and know how to talk and act intelligently. He must learn

the tricks or devices of those who discomfit him, and know how to use, adapt, expose or to meet them. He must learn how to advertise and how to circularize and "follow up." He must learn the advantage of being the first in the field with whatever is new or good. He must know how to make the most of it. He must enlist the interest of his local paper in exposing the fraud of the mail-order game, and to meet it he must sell \$50 bicycles if he can, \$49.99 bicycles if he must; and he should be true to those who are true to him. He should push the bicycles of those manufacturers who do not sell to and help upbuild mail-order competition.

IF THE TRUTH IS MIGHTY.

The entire mail-order structure is reared on the shrewdest possible use of printer's ink, coupled with sufficient fraud and deception to make it more attractive.

When those who are above deception put the ink to use as shrewd—and this carries with it exposure of mail-order fraud—they will come more fully into their own. If truth is as mighty as the proverb maintains, such contemptible trumpery and fraud as that employed in marketing mail-order bicycles cannot much longer prevail. It has prevailed so well and attained such proportions solely because of the quiescence of those most affected, who have but just realized how malignant is the mail-order cancer.

This state of affairs no longer exists, and will no longer exist. Before the *Bicycling World* drops the matter there will either be a mighty change in mail-order methods or some people will be required to show cause why they should not be denied the use of the mails and be placed behind the bars of a penitentiary. When this stage is reached it may require that some of those high in the cycle trade who are posing as the dealers' friends and defenders shall show the true measure of their alleged friendship.

Wanted, a Saddle Post.

Whenever a strong demand arises for an article it is a pretty safe wager that some one will sooner or later come forward with exactly what is wanted.

Just now the opportunity exists and awaits the man who is clever enough to grasp it.

It is a very simple matter. Nothing more than a saddle post that will so far depart from the standard design as to give many riders the position they want, without bringing in its train the disadvantages now complained of.

In short, it is a saddle post that will carry the rider well forward, and at the same time be as rigid as the frame itself.

Under the leadership of racing men and scorchers—on both track and road—the already forward position has become more forward. "Over the pedals!" is the cry, and the horizontal part of the saddle post is lengthened accordingly. Saddles, too, are thrust forward as far as they will go.

Frames are now either low or of medium height. The tube connecting the crank hanger and the saddle post still has a markedly backward slant, although it is not as great as formerly. These two circumstances, acting in conjunction with the present saddle post design, are responsible for the trouble complained of.

Where all posts formerly had the horizontal part turned backward, the desire of the rider to get forward long ago brought about the change to the present design—forward turned.

But this only helps matters a little. With a low frame, and usually a low saddle, a considerable length of post is required, and the longer the post the further back its slanting portion is brought. All this ground has to be retraced by the horizontal part of the post.

The result is frequently startling. Given a low frame, a tall rider, a forward position—with the saddle set as far front on the post as possible—and a post with the slanting part made of small tubing, the position is an untenable one. The rider's weight will render the saddle unsteady, bend the post or damage the frame.

To avoid this many riders make a brace—a stick of wood, whittled to shape and placed under the point of the saddle with the horizontal frame tube supporting the other end.

The homemade device works pretty well. But it is a makeshift, and is far from being reliable. Something better is badly needed.

Here is the chance for the designer, for the maker and the retailer. Put out a saddle post that will meet all these objections. It is quite possible, and it would sell like hot cakes.

A brace made of tubing would go a long distance in the desired direction.

A saddle post curved forward sharply, starting at the point where it leaves the frame, and giving the desired height and forwardness, would be infinitely better.

Such posts can be made. Who will be the first to make them?

GEARS AND CRANKS

Two Features of the Motor Bicycle That Require More Attention.

There are several other matters in connection with motor bicycles which have not received the attention which they deserve says the Automotor Journal

Among these may be mentioned the use of a clutch between the motor and the driving wheel. In practice this is a most convenient provision, and it renders a machine fitted with it considerably more safe than it otherwise is. Even on a voiturette the effect of any intermittent working of the motor is very liable to upset the steering, and when descending hills of no great steepness, or when travelling very slowly, the motor is bound to alternately drive and be driven when a fixed gear connects it with the road wheel. With such a light vehicle as a bicycle the braking power of the motor is very great, and, useful as this is on very steep hills, it is quite the reverse at other times. It is true that a clutch may itself be a danger if improperly used, and it is also true that it may be a source of trouble if improperly made; but there is no reason why either of these reasons should outweigh its undoubted advantages, even if it were found advisable, in consequence, to provide the motor with a governor which would prevent it from racing. Another convenience which may be required on some cycles is a two-speed gearing. This is already in use upon one type, and although the extra cost and complication involved by it are probably unwarranted on most bicycles, yet it could be more easily fitted and would be a distinct improvement upon those machines which are not provided with pedals.

Regarding the gear ratio of the usual foot-propelled chain wheels upon motor bicycles, the general tendency has been to keep it low. A low gear certainly renders the starting of the motor more easy, but it does not facilitate hill climbing unless the speed ratio of motor to driving wheel is very high. As in the case of an ordinary bicycle, the best gear must necessarily differ for different riders, but, generally speaking, there is little reason why any rider should use a much lower gear on his motor bicycle than on his ordinary machine. The reason for this is that the motor generally runs better and exerts more pull on the driving wheel when it is running at a medium speed, and below this speed it is less able to do the required work; with a very low gear the rider cannot materially assist the motor until it has slowed down to some such ineffective speed, and the muscular effort required is therefore greater than if he could have brought it into play while the motor was running faster. Many riders of motor bicycles would appreciate an even higher pedal gearing than they would ordi-

narily use on their older cycles, but this is largely due to their pleasure in rapid motion, and will not be defended here.

The length of the cranks is naturally a further matter which has an important bearing upon the question of gearing, but as this is again a personal matter with each individual rider we need only point out that the longer the crank the easier it is to start the machine or assist the motor.

Even from this brief review of the subject, in which we have pointed out many of the leading facts connected with motor bicycle construction, it will be seen that the question dealt with is not as easy as would at first sight appear. In spite of this, however, we believe that this type of automobile will play an important part in the near future, and we hope that manufacturers will give it the careful study which it deserves. Its advantages over any three or four wheeled vehicle are many, and its field of usefulness is almost entirely distinct.

How to Temper and Color.

"In tempering a tap I have found the following method to come out right every time, and can therefore confidently recommend it," says a worker in metals:

"After the tap has been cut and finished ready for hardening, take it in a pair of tongs and heat it to a blood-red heat over a charcoal fire or a blue flame of a Bunsen burner or blowpipe, meanwhile turning it round so that one point does not get heated before another. Have ready a pail of clean cold water into which a handful of common salt has been put. With a stick stir up the water in the pail so that a whirlpool is set up. Then plunge the tap point first and vertically into the vortex of the whirlpool until cool. The turning of the tap during heating as well as the turning of the water round the tap during quenching prevents any distortion.

"In tempering, the temper of the tap requires to be drawn to a light straw color, and this is done as follows: Get a piece of cast-iron tube about three inches in diameter and heat it to a dull red heat for about four inches of its length. Then hold the tap with the tongs up the centre of the tube, meanwhile turning the tap round until the straw color appears all over it. Then dip the tap in water, when it will be found perfectly hard. The depth of the straw color, whether light or dark straw, will be determined by the nature of the cast steel being used, and will be gained from experience of the steel."

Lubricating Coaster-brakes.

Lubrication of coaster-brake devices is a matter that is likely to be neglected. A little oil injected at not too infrequent intervals will keep the clutches in good condition.

Two Wheels Wanted.

We desire to obtain two copies of The Wheel of August 23, 1900. We will be pleased to give six months' subscription to the Bicycling World in return for each copy.

THEIR OWN ENEMIES

How Merchants Underestimate the Value of Credit to Their Detriment.

If merchants, especially the smaller ones, knew how disapprovingly their lapses in relation to financial matters were viewed, they would, in some cases at least, do something toward rectifying them.

Neglect and inattention are the faults which the average cycle dealer is most apt to encourage. Yet they are precisely the ones least excused.

A maker will in nine cases out of ten show consideration for an agent whose business is poor or whose collections are slow. Harsh measures accomplish little good at the best, and they destroy the cordial relations which should exist, and must, if the connection is to be mutually advantageous.

But what the credit department will not excuse is the neglect of the common business courtesies so much indulged in by dealers.

If a bill falls due on a certain date the creditor would be pleased to receive a settlement promptly; but he would not be particularly surprised if a day or two passed and the expected check did not put in an appearance. He has become habituated to that sort of thing.

But if he writes to the debtor, stating that the account will fall due on the date mentioned, and that, failing a request to the contrary, he will draw for the amount at a specified time, he, in turn, expects some consideration.

The least the debtor can do, he thinks, is to notify him if it will not be convenient to pay the draft. A prompt explanation of the reasons for asking for more time, or even just a simple statement that leniency is desired, will nearly always settle the matter.

The worst thing to do is to do nothing. This, it must be confessed, is the course taken all too frequently.

The dealer thinks that possibly he can pay the draft when it comes in, some weeks hence. Or he intends to write and say that he can't pay it, but gets no further than intention.

Then some day, to his surprise, the draft does come to him, and he is obliged to return it. Or he finally gets to the point of writing his creditor and begging off, but it is too late, as the draft has been drawn and forwarded for collection. Consequently it fails to be paid.

The creditor is out his time and trouble and the charge made for the draft. His feelings are very far from being pleasant ones.

The debtor has hurt his credit with his bank and has angered his creditor. The latter does not know whether to draw again, being fearful that the second draft will meet with the same reception as the first.

And it could all have been avoided by a little letter of explanation.

MASON'S GOOD ADVICE

He Shows Wherein American Exporters are Lacking and Suggests Remedies.

It is one of the anomalies of the present situation in Germany that, notwithstanding dull and declining home and foreign markets for most products of German manufacture, there is an unusually brisk and insistent demand for certain articles of American origin, says Consul-General Mason in a report to the State Department from Berlin. During no recent period have so many inquiries, personal and by letter, been received at this consulate from German firms and individuals who wish to be put into direct relations with American manufacturers and exporters as during the first three months of the current year.

AMERICAN GOODS APPRECIATED.

The significant and gratifying indication in all this is that American manufactures, as such, are becoming well known in Germany and are appreciated and approved for their quality and price. Here, as in Great Britain, an American label or trademark has come to be recognized as conveying a certain guarantee as to general excellence in material, workmanship and ingenious adaptation to the purpose for which the article is intended. The American machine tool, the high-grade bicycle, dried and canned fruits, the \$3 shoe, the typewriter, the roll-top desk and various fixtures have set high standards of excellence in those specialties, and made the way more open and easy for the other manufactured products which are to follow. In respect to all these things it is but justice to say that with few exceptions German people, especially in the cities and larger towns, have been just and discriminating in their appreciation of American wares, and do not hesitate to buy the imported article when it is better or cheaper than a similar product of native manufacture. So notoriously is this true that purchasers here are often reproached by trade papers and manufacturers' associations with a want of patriotism and a weakness for imported articles which have the merit of novelty.

GREAT MANUFACTURERS; POOR MERCHANTS.

But, while all this is true, it must be admitted that, except in a few lines, American exporters have been slow in learning the best methods of utilizing the opportunities which are offered in the German market. The makers of machine tools and shoe-making machinery, typewriters, and a few other specialties learned the lesson early and well, and have profited by their knowledge. But, as a class, the American manufacturer—incomparable as such—is still in the primary grade as a merchant in foreign fields. That this should be so is perhaps a natural result of his education and environment. His success at home has been so complete and satisfying, his confidence in American methods

so ingrained and assured, that he finds it hard to realize that customers cannot be won in France, Germany and Russia with catalogues and price lists in English; with measurements, weights and values stated in inches, pounds and dollars, and offering to sell his incomparably superior products for "cash at ten days' sight f. o. b. New York, sight draft with bill of lading attached."

FOLLY OF "EDUCATING" FOREIGNERS.

The folly of all this has been explained and written threadbare in consular correspondence and published reports. It has been emphasized in the letters of German agents and importers, but still the confident exporter goes on in his efforts to "teach foreign purchasers American methods of business." If he ventures upon a foreign language it is almost invariably Spanish, and German has been strewn with Americo-Spanish catalogues and price lists which are twice as bulky and no more comprehensible to Germans than if printed in English alone. By way of making it pleasant and easy for the foreign customer he often incloses a United States stamped envelope, printed with his own address, to contain the returning order. If he sends a travelling salesman or agent to study the market and make personal propaganda, the chances are that the emissary will be a bright, energetic, capable young American who knows all about the goods and how to sell them in the United States or England, but is ignorant of every language but English and helpless beyond the realm of his mother tongue. Even with these disadvantages, the imperfectly equipped salesman often renders a valuable service by studying the actual needs and conditions of the foreign market, finding how it can be best reached, and, as one of them sententiously remarked, "getting the facts to convince our firm at home that Germany is not in the United States."

INFORMATION THAT CATALOGS LACK.

In respect to size, beauty of print and illustration, the trade catalogues issued by American manufacturers are the most elaborate and beautiful as well as the most expensive in the world, but for practical purposes they are often defective in several respects, the most essential of which are too many claims to superiority and too little definite and exact information concerning the weight, dimensions and effective capacity of machinery; absence of metric weights and measurements, and prices in francs, marks or other foreign equivalents, and translations, when given at all, made by persons who do not understand the goods, and which are often so incorrect and imperfect as to furnish no adequate technical description of the merchandise. As a result of these defects, intending purchasers are frequently obliged to open a correspondence with the exporting manufacturer in order to obtain clear and definite information. This entails a serious waste of time and often leads to the loss of orders, which are given to manufacturers of other nationalities, who make careful and

complete catalogues specially for the German market, or, what is still better, send a capable travelling salesman to exhibit samples or photographs of the goods and make direct contracts in the office of the purchaser.

SHARP PRACTICES THAT PREVAIL.

For the fact remains that with all that can be done by other means, it is the expert salesman—the drummer—who is the most effective nurse of new trade, either at home or abroad. The foreign firms or agents are also important adjuncts when they are trustworthy and enterprising, but there is always the possibility that they will hold back the sales of an imported article while pushing those of native production, or they may take advantage of loosely drawn patent and trademark laws to improve their own product at the expense of the foreign competitor. All this is but natural, and must always be taken into account by exporters who place their goods in the hands of foreign agents who are already established in a similar line of trade. Many of such houses in Germany have been enterprising and faithful, and have built up an important and permanent traffic in American specialties. Others have utilized the opportunities thus acquired to use the imported machine or other article as a model to improve their own product, which they have pushed into complete control of the market.

BINDING CONTRACTS NECESSARY.

There should be, therefore, a closer acquaintance and more binding agreement between exporter and agent, and this can be acquired only by personal contact and a more careful study of the conditions and requirements of European trade, made here on the spot by competent merchants or expert salesmen. In large enterprises, the sale of machinery and tools, sales of railway supplies, mining equipments, contracts for bridges, etc., our people have achieved brilliant successes, because they have come abroad and done the business directly with purchasers. The enormous increase of the German export trade during the past twenty years is a monument to the efficiency of the good-natured, persistent, highly educated German drummer, who, with sample bag and order book, backed by subsidized steamship lines and German branch banks in foreign marts, has camped in the remotest markets of the earth until he has practically made them his own.

ERRORS COMMITTED BY EXPORTERS.

It is an ungracious though sometimes a wholesome duty to point out some of the other errors into which certain of our exporters have fallen through careless overconfidence or ignorance of foreign conditions, and to state from the standpoint of the German importer some of his grounds of complaint. The first of these charges is that American exporters are in many cases too lax and irresponsible in the fulfilment of contracts. It should be clearly understood that under German laws non-fulfilment of contract is a misdemeanor for which the

delinquent can be made to pay both actual and contingent damages.

It follows that the German agent of an American exporter, selling goods on commission and depending upon the promptness and good faith of his principal not only for the stipulated delivery, but for the quality of the merchandise, is placed by any default in an exceedingly risky and delicate situation. Being a German subject, he is held subject to the laws of Germany in respect to all contracts made for fulfillment in this country. If he fails to deliver the right goods at the right time, the purchaser may at his option cancel the contract or cover it at the risk and account of the commission merchant who represents the foreign seller. Against the honor and good faith of most American exporters nothing can fairly be said, but there are in several lines of business firms of easier conscience and sharper methods who do not hesitate to conduct their export trade on the ethical basis of a horse trade and who stoop to practices which are complained of by the victims to their local chambers of commerce, are reported and discussed in newspapers, and furnish the enemies of American imports with just the ammunition that they crave.

HOW EXPORT TRADE IS HURT.

Among cases of this kind which have been complained of at this consulate during the past few months has been one in which a large shipment of grease for candle making was found adulterated with 28 per cent of water, and the exporter made a stubborn fight against allowing the discount justified by such fraudulent qualities; others in which machinery has been damaged in transit by reason of frail, imperfect packing, and scores of cases in which California prunes and other dried fruits are not graded at all.

In no market of Europe will any trickery of this kind—any lapse whatever from absolute honesty and good faith in the fulfilment of a contract—entail such fatal consequences as in Germany, where every detail of commercial practice is strictly regulated by law, and where the purity and excellence of food products are guarded and enforced with a rigor which is all but fanatical.

IMPORTANCE OF INTELLIGENT PACKING.

Another point that few American exporters seem to grasp is that articles made from several different materials—as wood, steel, nickel and copper—are uniformly classified for duty in Germany under the constituent material which bears the highest rate of duty. This has led to some queer and seemingly irrational decisions, as, for instance, where canned vegetables were classified as tinware because the duty rate on tin is far higher than on vegetables. When, therefore, machinery or other merchandise includes parts which are nickelled, upholstered or otherwise specially decorated, such parts should be packed separately. Letters or catalogues should state precisely not only what the article weighs, but how many cubic feet of space it occupies when packed in the smallest practicable compass for shipping,

and whether the individual parts are of steel, brass, iron, wood or other material.

GOOD FIELD FOR NOVELTIES.

While it is probable that the imports of American machine tools, electrical, and even agricultural machinery, may show a marked decline during the current year as compared with 1900 and 1899, there is yet an unsatisfied demand for a wide range of novelties and special inventions in which American ingenuity and adroitness in manufacture have produced something strikingly superior to what is known or used in this country. Dealers with experience, ample resources and knowledge of the German market are numerous and ready; it is the American salesman with samples and specifications who is generally lacking.

WHAT FOREIGNERS REQUIRE.

Finally, the American manufacturer who seeks to establish a market in an old and well supplied country like Germany should realize that it costs something to advertise and introduce a new article, and ought to be willing to pay part of the expense of the enterprise. This he can do by an allowance for advertising purposes, or by granting a longer credit for the goods themselves. Before giving the exclusive agency of a product to a single firm the exporter should know with whom he is dealing; but, once satisfied on that point, absolute faith should be kept. Many an American exporter has spoiled his chance with the best German importers by sending mailed circulars and propositions broadcast, whereas the article was one which required a special representative agency for its proper introduction. Few responsible houses will undertake the introduction of a new kind of merchandise which any competing firm can obtain direct from the American exporter. In all these respects business men are very much alike the world over, and it is always a wholesome process for the seller to imagine himself on all questions of detail in the position of the buyer, and consider what he would or would not be willing to do if their relations were reversed.

Merkel Opposes Chains on Motorcycles

The Merkle Mfg. Co., Milwaukee, Wis., are also among those who oppose the use of chain transmission on motor bicycles. They plump strongly for the belt, which they, of course, use on their machine.

"People who use chains on small machines have something to learn," they maintain, "as the motion is too direct, and consequently when the motor bicycle runs into a rut or deep sand its speed is momentarily checked, and the inertia of the fly wheel and the continued explosion in the motor will cause the belt to slip and yield, while with chain transmission the slip will occur in the rear wheel and the tire will suffer in consequence. Even in the case of a large automobile using the chain transmission the clutch will slip a little, but at that the rear tire will be severely taxed."

Depends on the Salesman.

There are many quips and quirks about the salesman's trade that are beyond the comprehension of the ordinary mortal.

The proof of the pudding is truly said to be in the eating thereof, and the salesman who achieves results can well point to his methods as being profitable ones, if not the best in the world.

But the last word has not been said even then. The way that may succeed with one buyer will fail with his fellow. One sale lost more than balances three consummated, for to land a customer is but to do what is expected, while to lose one is a happening untoward and unexpected, almost inexcusable.

Nevertheless, it is results that the store-keeper is looking for, and if the salesman accomplishes them he has a pretty good defence against criticism.

He is, after all, the best judge of the efficacy of his methods. They may appear all wrong to one person, while another will think them just right. But no one can tell as quickly as the salesman whether or not he is on the right track.

It is a cardinal doctrine with most salesmen that it is a mistake to show many goods. In the case of a bicycle, for example, there is usually one make pushed more vigorously than others, and one pattern of that particular make especially adapted for the average rider's use. What more natural, then, than that this machine should be given the lion's share of attention?

Equally as a matter of course, the prospective buyer desires to look at other machines. He may be entirely satisfied with the one shown him, and have mentally decided to take it; but he wishes to compare it with others, principally to convince himself that he is happy in his choice.

It is here that the line of cleavage develops. Some salesmen will bring out machine after machine, different in pattern and make, and show them one after another until the buyer's brain is bewildered.

Others will take a stand, diplomatic yet positive, against such a course. Without saying in so many words that the machine first shown is the most suitable one, they will use every indirect means to achieve this result. Nothing can shake their determination to keep the first machine in the foreground.

Sometimes a customer will protest against such a course, or even take offence at it. He will reason that he is the one to judge which is best, and insist on other machines being brought out.

At such times, unless the salesman is tactful, the sale will be placed in danger. The buyer must be humored or talked out of his mood.

On the face of it, there seems to be no doubt that the best policy is to give way to the plainly expressed desire of the customer. But many sales have been lost by adopting this course, and salesmen know it.

Their theory is a good one, viz., that the less confusion there is about machines the quicker will be the sale. They simply act on this. It is going a great way to accuse them of being wrong.

WHAT BICYCLES WITHSTAND

The Strains to Which it is Subjected That Have Made Men Marvel.

It has been frequently pointed out that if the highly scientific engineer were intrusted with the task of turning out the modern cycle it would be a vastly different machine.

Theory plays a small part in the construction of a cycle. It is rather what has been done that influences what is to be done. A trained designer of bridges, for example, would stand aghast at the idea of putting in a frame tubing of 24 gauge or spokes of 16 or 18 gauge and expecting them to stand up under the usage to which the average bicycle is put. But the bicycle designer would settle the matter for all time by pointing to the fact that hundreds of thousands of machines have been turned out in this form and have performed the duty allotted them.

As having a direct bearing upon this subject, says a well-known manufacturer, I recall the substance of a most interesting conversation I recently had with an eminent civil engineer, who was unacquainted with the strides which had been made in that branch of the light mechanical engineering profession concerned in the design and manufacture of cycles.

He expressed the opinion that, when the mechanical history of the nineteenth century came to be written the cycle, as a vehicle of locomotion, would be regarded as one of the greatest advances of physical science. In particular, it must be so regarded, he said, in respect of its weight, having regard to the work it successfully performs, and also as an example of how an absurdly small quantity of material, apparently of the most fragile character, could be scientifically disposed so as to give the most marvellous results. It almost made him doubt if the accepted textbook calculations of strains used in the science of engineering did not need revision.

"If I were asked," said he, "to design a bicycle subject to the usual engineering formula, say, to carry a rider of 150 pounds over a given surface, with gradients within given limits, and at a given speed, my calculations, allowing a margin to secure co-efficiency, would not come out under seventy pounds. To provide for riders of all weights, at all speeds, over all surfaces and gradients, I should be compelled to raise my weight in order to meet such varied strains to at least one hundred pounds."

I pointed out to him that the cycle manufacturer, on the other hand, was continually grumbled at if he handicapped the rider with a total weight of more than about thirty pounds, of which about 25 per cent is made up of accessories and parts which do absolutely no work at all toward sustaining the weight or resisting the driving strains of the rider.

This caused him to inquire into the detailed weights of the various parts, and his astonishment was undisguised at learning that a cycle frame and forks weighing only about eight pounds should be able to sustain the load and driving strains of a two-hundred-pound rider under such widely varying conditions as a cycle is subjected to. But before the cycle wheel he simply stood aghast, and could not realize how from six to eight ounces of metal forming the spokes could be so disposed as to carry such loads and resist such strains. He frankly confessed that the possibility of building such a wheel shattered all his accepted axioms.

I further pointed out to him that not only was the production of such wheels expected by the cycle manufacturer, but that if, after a year or two of hard usage, a single spoke should break or a wheel get slightly out of true, he would be promptly informed that



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

"such workmanship was disgraceful." My friend the engineer then agreed with me that the lot of the cycle maker was not altogether a bed of roses.

One or Five Tubes May be Used.

Nothing less than five inner tubes will satisfy a Huntsville (Ala.) man, George White, who has invented an "ingenious" tire for use on bicycles and vehicles of all kinds.

The tire, it is explained, is designed to do away with the worry and inconvenience of bursted or leaky tires on bicycles, carriages and automobile. White's patent consists of an outer tube, just as used at present, but instead of only one there are five inner tubes, any one of which may be inflated at pleasure. The inflation of one tube is sufficient for ordinary use, or all five may be inflated at the same time. Each tube has a valve for its individual use, and there is another valve which connects with all of them. The advantages of having one of the patent tires is readily apparent to those who have any use of pneumatic tires, it is naively said in conclusion.

MADE IN WISCONSIN

Some Details of the Motor Bicycle That Comes from Racine's Big Factory.

The Mitchell motor bicycle, made by the Wisconsin Wheel Works, of Racine, Wis., "arrived" some time ago, but as it is not yet familiar to the trade generally a few facts concerning it may be of interest.

Right here it may be said that the bicycle is not a hurriedly prepared product gotten up to meet the demand that is known to exist, but a carefully developed machine, on which much thought, time and labor have been expended.

The Wisconsin Wheel Works were one of the first to become interested in the motor bicycle, but they decided to manufacture only after thorough investigation and after they had become convinced of its possibilities and practicability. Once decided, the same aggressive energy that has characterized their every move since W. Mitchell Lewis assumed control was brought into play, with the result that rapid progress was made.

In company with Mr. Lewis, a Bicycling World man last week journeyed from the factory to the racetrack where every motor bicycle is thoroughly tested and tried out before being shipped. This track, by the way, was built by Mr. Lewis and four other racing enthusiasts a few years ago, and is one of the fastest in the country, having a record of 1.46 to its credit.

The Bicycling World man tried four Mitchell motor bicycles, and had no difficulty in reeling off quarters fast enough to keep him guessing. The machines all ran very smoothly, with scarcely a skip or break; the motors gave evidence of much power, and there can be no hesitation in pronouncing the machines an undoubted success.

The mode of operation is simple in the extreme. Insert the usual plug, connect the batteries through the grip, turn on the gasoline, mount, give a few thrusts to the pedals, close the compression, and away you go. The speed is controlled by moving the spark on the side of the motor, and can be varied from four to thirty-five miles per hour. A Morrow coaster-brake provides an efficient means of quick stoppage.

The motor is of the four-cycle type, jump spark, make-and-break sparker, and has been tested, so the makers say, over the stiffest grades, with uniformly satisfactory results. The total weight of the machine is 110 pounds, and the appearance is decidedly attractive, the finish being in carmine and green, with nickelled muffler and trimmings. The company are just issuing a neat catalogue which explains the main points of the machine, and are already making deliveries.

"Motorcycles and How to Manage Them": 126 pages, 41 illustrations; cloth bound, \$1. The Goodman Co., Box 649, New York. ***

RACING

Killing off opponents in a race is excellent policy—provided it succeeds and the killer-off is not also included in the mortality list. This was demonstrated in the opening night of the Golden Wheel race, which is the feature of the present week at Boston, Mass. Beginning on Monday night, July 1, the competitors are scheduled to ride two hours per night for six nights, motor paced, the total score to determine the winners. Five men faced the starter. They were Nelson, Stinson, Walthour, Champion and Moran, and 120 minutes later one of them, Walthour, was out, and Nelson and Stinson were miles behind Champion and Moran. It was an excessively hot night, and the three favorites started off as if it were a race of the usual distance. Before half the two hours had elapsed Stinson had punctured and lost ground which he was never able to make up. Walthour was in trouble shortly after, retiring at 43 miles. Up to 55 miles Nelson retained the lead, although plainly tired. Then Champion went to the front and finished in the lead, his score being 68 miles 782 yards, with Moran 546 yards behind. Nelson was third, with 66 miles 740 yards, and Stinson fourth, with 63 miles 722 yards. The Frenchman was the surprise of the evening, riding like clockwork and never faltering.

Kramer was in hard luck at Vailsburg, N. J., on June 30. Fenn's meteoric burst of speed in the last half lap of the five-mile handicap, which Kramer was unable to equal, robbed the latter of the first place and of a five-mile world's competition record as well. Fenn's time, from the 100-yard mark, was 10.29 1-5, and Kramer, scratch, was but one-fifth second behind this, or well within the best on record. Not being the winner, however, it does not go on the books. The race referred to was the feature of the day. Twenty-five men started and went through without a spill. Urged on by the lap prizes, the men rode like the wind, the field gradually closing up as the race progressed. Kramer made his effort on the backstretch, and looked a winner when Fenn went by. Freeman, Jacobson and Downing got the other three places. Kramer also won the half-mile open, followed by Wilson, Cooper and Downing in that order. Hurley made his usual win in the quarter-mile open, amateur, but could not score in the half-mile handicap. He also won easily the three-cornered match race, defeating Schlee and Billington in two straight heats.

Something of an international flavor was given to the twentieth annual meet of the Kings County Wheelmen, held at Manhattan Beach on June 29. This was due to the team race, run in heats, between Jenkins and Gascoyne, the Englishmen, and Kramer and Cooper. This proved to be the feature of the meet. In the first heat the Americans

were first and last, respectively, with the Englishmen in between. As first place counted 5 points, second 3, third 2 and fourth 1, the home contingent led by 6 points to 5. In the second heat Gascoyne forced the pace, assisted by Jenkins, and it was not until 100 feet from the tape that first Kramer and then Cooper got by their opponents, thus winning the race. Kramer captured the half-mile open, with Freeman second. The 2-mile handicap, however, went to the long-mark men, Kimble and Gascoyne, each 90 yards, getting first and second. Hurley won the Saltonstall cup, awarded to the victor in the 5-mile Metropolitan District championship, and his team, the Greenwich Wheelmen, won the 2-mile interteam lap race.

In spite of the intense heat prevailing, the second indoor night meet was run at Madison Square Garden, New York, on July 1. Two professional and two amateur races composed the card. Of the former the Westerners accounted for one, the half-mile, Downing, Freeman and Newhouse getting the first three places; while in the other matters were just reversed, Tom Butler, Collett and Hausman being the winners. In the intercity five-mile team pursuit race the two Buffalonians, Bardgett and Zurbrick, were easy winners, catching Van Cott and Schreiber inside of eight laps. Bardgett, Schreiber and Zurbrick finished in that order in the five-mile lap race.

The National Paced Circuit Association makes its bow, it having been organized at New York last week. P. T. Powers was elected president, F. E. Spooner secretary, P. O. Sheehan treasurer, and A. A. Irwin, C. R. Klosterman and M. J. Costa were named as an arbitration committee. The following tracks were represented: Charles River, Boston; Madison Square Garden, New York; Woodside Park, Philadelphia; Coliseum, Baltimore, and Coliseum, Providence. A circuit of paced races to be run on these tracks will be prepared.

Walthour kept up his good work last week by defeating Ross in fast time in a 25-mile motor-paced race at Woodside Park, Philadelphia, on June 29. Outside of Walthour's fine riding, the 25th mile being covered in 1.25 1-5, the race was uninteresting, Ross practically giving up at eleven miles. He was two miles to the bad at the finish. Time, 38.13 4-5, competition record.

Either Tom Linton is outclassed by the best of the American motor-paced racing men or he is not yet fit. This was again demonstrated at Providence, R. I., on June 26, when Stinson easily took him into camp in a 25-mile motor-paced race. Stinson took the lead at the start and increased it throughout the race, being seven laps ahead at the finish. Even then it was plain that he slowed steadily throughout the latter part of the race. Time, 39.44 2-5.

That Nelson is in his best form was again demonstrated at Woodside Park, Philadelphia, on June 22. He disposed of Moran without trouble in a 20-mile motor-paced race, leading by 2¾ laps at the finish. Time, 30.34 3-5—very fast even for this fast track. Moran rode a good race, and it was not until the 9th mile that Nelson gained his first lap.

Ill luck pursues Nat Butler. At Springfield, Mass., on June 28, in a 20-mile motor-paced race with I. G. Perry, he had lapped his man at the sixth mile and looked a winner. But a punctured tire to his own wheel and a broken chain on his pacing machine permitted Perry to get a long lead, which he maintained. Time, 36.58 2-5.

At Washington, D. C., on June 20, Nelson duplicated his victory of the night before at Baltimore. He again defeated Pierce, this time in a 20-mile motor-paced race, leading by a mile at the finish in the fast time of 32.16. The last mile was ridden in 1.29 4-5. The terrific pace was too much for Pierce, who early fell behind.

For the "pures" exclusively were the races at Revere Beach, Boston, Mass., on June 22. A novelty was a 10-mile motor-paced race between Amateurs Osgood and Stevens, of Lynn, won by the former. Time, 19.35 2-5. A 15-mile open race was the other principal event, C. G. Dow winning in 26.54 2-5.

A world's record, amateur, unpaced, now stands to the credit of Daniel Sullivan, of New York, for winning the five-mile handicap from scratch at Hartford, Conn., on June 24. His time was 11:09. Kramer won the half-mile open and Collett the mile handicap, both times being fast, 1:01 and 1:59½ respectively.

It was Walthour against Ross at Washington, D. C., on June 27—the consistent winner against the consistent loser. The occasion was a 25-mile motor-paced race, and Walthour won without any trouble. Ross was five-sixths of a mile behind at the finish. Time, 38.33 2-5.

Three interesting and hotly contested professional racing events were run off at Lagoon Island, near Albany and Troy, N. Y., on June 26, and pleased a good audience. Cooper won the half-mile open in 1.01, Wilson the mile handicap, and Downing the 2.10 class.

Ross made a close race of it against Walthour at Baltimore, Md., on June 26. With only two laps of the 20-mile motor-paced race remaining to be run, the two men were together, when Ross lost his pacing machine. Walthour seized the opportunity and romped away. Time, 32.11.

Kramer scored a victory in the half-mile open at Hartford, Conn., on June 24, defeating Fisher, Wilson and Kimble in that order. Collett won the 5-mile handicap, with Floyd Krebs second and Caldwell third. Time, 1.59 4-5.

UPSET OF HORSE-POWERS

Hill-Climbing Contest Gives Confusing Results—Oxygen Gas for Motors.

London, June 19.—The hill climbing contest held at Tilurstone last Saturday aroused considerable interest. The hill is a bad one so far as length is concerned, but is not particularly steep. The gradients are: One in 17 for 408 yards, 1 in 13 for 333 yards, 1 in 11.9 for 175 yards, 1 in 11.5 for 38 yards and 1 in 8.7 for 260 yards. In the motorbicycle class the Werners had it all their own way, and the winner rode a machine of this make fitted with a $1\frac{1}{4}$ h. p. motor, the time being 2 min. 6.45 sec. The fastest time was done by a Werner with a $1\frac{1}{2}$ h. p. motor, which machine ascended the hill in 2 min. 22.5 sec.

The motortricycles were divided into two classes, namely, those up to 3 h. p. and over. The fastest time was done on a De Dion fitted with a 3 h. p. motor, the time being 1 min. 44.45 sec. One of the machines, with only a $2\frac{3}{4}$ h. p. engine, ran this very close, the time being only 1 min 45 sec. In the class for high powered tricycles the winner rode a 5 h. p. De Dion, and did the fastest time, namely, 1 min. 40.35 sec., as against the 1 min. 42.25 sec. accomplished by C. Jarrott on a similar make of machine, but fitted with an 8 h. p. motor.

The class for quads up to $3\frac{1}{2}$ h. p. did not prove a success, as the only starter was Mrs. Kennard, who rode a De Dion tricycle with a Whippet trailer. The lady's time was 4 min. 49.25 sec.

The lessons to be learned from the climb are not very apparent, because the results do not work out in accordance with the various powers of the motor employed. It must either be that the riders varied greatly in their skill in management—and as most of the men were more or less in the trade, it follows that this is hardly likely to be the case—or the powers of the engines were incorrectly stated. There was absolutely no checking of the motors, or comparing the powers of the various engines used with the entries received, and this applied not only to the cycles, but to the cars competing. It is a pity that the management of most of the motor competitions is so very lax.

In the hill trials last Saturday all the motocyclists pedalled hard to assist the engines, and thus defied the N. C. U., which body had given notice that riders so assisting their motors would come under the rules of the Union. As, however, none of the men are racing cyclists, and as some of them never heard of the N. C. U., the warning went unheeded, and very properly so. We do not want any N. C. U. interference with motorists, and, having regard to the muddle the Union has made of cycle racing, moto-

cyclists can afford to laugh at the would-be officials of the would-be governing body of cycling. I am wondering what will now be done to the men who pedalled. Will they be declared professional cyclists, and, if so, will it hurt them very much?

I saw an arrangement being made the other day, the object of which is to employ oxygen gas for mixing with petrol vapor, instead of ordinary air. The inventor claims that he will thus save the space taken up in the cylinder by the nitrogen gas which is now taken in with the small quantity of oxygen, and that, as this gas is not used in the explosion, but is expelled from the cylinder in the same condition it entered, as it occupies rather more than three-fifths of the space, the motor should give off more power in consequence. The question arises as to whether the walls of the ordinary cylinder are sufficiently strong to resist the increased pressure, but this can be easily ascertained by experiment, and, should the power derived really be greater, the cylinder can be strengthened to meet the increased strain. If the power can be made higher by this arrangement, it is claimed that a neater and smaller motor can be employed, which will constitute a saving in cost, and also to a certain degree in weight, after allowing for any increased thickness of the walls of the cylinder which may be found to be necessary. Of course, the present arrangement means the carrying of a supply of compressed oxygen in one of the steel cylinders commonly used for the purpose, and it seems to me that success or failure will depend largely upon how much gas will be required and how long the supply carried will last. Unless the quantity needed is small, I fear that the extra complication will be against the process. The inventor, however, is trying the arrangement on a motortricycle, and only intends to employ the gas when ascending hills, his object being to increase the power of the motor when such a course is desirable. This looks as if he is aware that the cost of running with the oxygen is very great, and that the compressed gas is only to be employed for steep ascents. If so, I fail to see how the claim put in for a smaller and neater motor can be sustained, because it is obvious that the same size engine as heretofore will be required for work on the level. I am also afraid that the cost of the special apparatus necessary for the using of the compressed gas, or for taking in air when the gas is turned off, will be rather great—in fact, considerably more than any of the two speed gears at present in the market.

Low Weight, High Price.

A 21 $\frac{1}{4}$ -pound bicycle is advertised by an English firm as something strikingly new. It is compared with other machines scaling 35 pounds—scarcely to the latter's advantage it is needless to add. Unfortunately, the price of this paragon is \$150, although it is promised that in six weeks this figure will be reduced by \$20.

Fourth of July
Retrospect.

19,735 Dealers from America to Australia.

That is the exact number of those who know and praise the

Elfin
Bicycle

—Standard of the World in Juveniles.

If you haven't yet joined the procession don't wait for another Fourth of July to roll 'round, but make your peace with us at once—send for catalogue—and establish an agency for this incomparable Juvenile.

Frazer &
Jones Co.,
Maker,
Syracuse, N. Y.

SINGLE TUBES ABROAD

Two Kinds of Evidence Compared—Claimed to be of Equal Worth.

Some people have the idea that negative evidence is of equal value with evidence of a positive nature. No amount of arguing will convince them that their testimony that they did not see a thing will not balance that of another who asserts that he did see the self-same thing. Their inability to see the difference is a constitutional one, and argument is thrown away on them.

The Englishman who says that single-tube tires cannot be repaired, merely because he cannot do so, is an example of this class. The fact that thousands of others can and do repair such tires does not weigh with him for a single moment. Most likely he will believe, or even say, that the bearer of this positive evidence is drawing the long bow. But even if he gives the assertion credence he will insist that one statement matches the other, and that consequently it is a stand-off. And that ends the matter as far as he is concerned.

An assertion of this character by a writer in a Scottish paper has brought forth a letter from the director of the concern pushing single-tube tires of American manufacture in Great Britain. In it, after setting forth the fact that such tires have caught their second wind and are making gratifying progress there, he imparts some interesting information regarding the growth of the tire, why it had been retarded across the water and its present good outlook.

As a matter of fact, he says, ten years ago only a small number of single-tube tires had been made and marketed either in this country or in the United States. I do not know the numbers for this country, but in 1891 only about 200 of such tires were made in the United States, and 1,800 in 1892, and it was not till 1896 that the great improvements in the manufacture of the single-tube tire enabled its manufacturers to convincingly demonstrate its superiority. In the year 1896 this great superiority caused an enormous increase in the sales of single-tube tires. In that year their sales rose to 1,250,000 tires, or 70 per cent of all tires sold in the United States.

As a matter of fact, the use of single-tube tires in this country is developing most satisfactorily. Last year our sales were greater than in any previous one, although our business was interrupted for nearly two months in consequence of a fire which destroyed our stock, and so far this year we have beaten all previous records.

How does this increase of trade arise? Not from advertising, because we are at present very small advertisers. It comes simply from the recommendations of satisfied riders of single-tube tires. I have some hundreds of unsolicited testimonials from

fair-minded riders which I should like the "Bear" to read, for conclusive proof that he is wrong when he says that the hard-riding or the easy-going cyclist will never invest twice in single-tube tires. These letters reach me every week.

How is it that the sale of the perfected single-tube tire is so satisfactorily increasing? Clearly the cause must be in the merit of the tires themselves. If they are properly fitted to the rim in accordance with the instructions they are no more liable to crack, leak or puncture than other tires, and if punctures should unfortunately take place they are more easily repaired by the riders by means of our special repair outfit than are double-tube tires by the ordinary repair outfit. Vulcanizing is only necessary in the case of tires so badly damaged that they would require a complete new outer cover if they were double-tube tires.

Owing to the difference in American roads as compared with English ones, their freedom from flints, the absence of hedges and the consequent absence of thorns, it is possible to use in that country single-tube tires lighter in weight than any that can be used here. These lightweight tires are sometimes imported here, and owing to their very light weight prove to puncture more freely than the single tubes made specially for use on English roads. Riders who give a fair trial to both detachable and single-tube tires made specially for English road work invariably find that they are equally as resilient, more easy to repair, and that they outwear any detachable tires of equal weight.

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

For the Leg-Crippled.

The Manumotor is a new type of machine which the National Cycle Mfg. Co., of Bay City, Mich., build only to order. It is a tri-cycle, hand propelled, and lists at \$200. A pair of cranks are attached to the frame, coming just above the rider's waist, and a person deprived of the use of his legs can get about remarkably well on the machine.

LOST BY LINLEY

He First Brought Out Free Wheel, but it did not Take.

Inventors do have a hard time of it, and it is only now and then that one of them experiences the joy of having his dearly cherished device come into general use. For every Stanley or Dunlop that flashes across the sky there are a hundred nameless ones whose ideas appear at the time to have quite as much chance of succeeding as did the safety bicycle or the pneumatic tire.

At other times the inventor is obliged to undergo the chagrin of seeing his hobby placed on the shelf—after a more or less extended trial—and writ down a failure; and then, after the passage of years, it is brought forth and made a "go."

An English maker, C. M. Linley, who has fathered many meritorious inventions applied to bicycles, is one of the latter class. Fifteen years ago he patented and marketed a machine embodying one feature—the "free wheel"—now in great favor, and two others—variable gears and crank throws—much desired and even sought after.

"Perhaps it would interest you to know," he is quoted as saying, "that as far back as 1884 I patented and exhibited a gear—Patent No. 2,547-84—that would do exactly what is wanted, and it had no real disadvantages or drawbacks. It was ridden for thousands of miles, and proved itself to be a thoroughly reliable and durable gear, with only the normal friction of chain driving.

In the same year I made and patented a variable throw crank—Patent No. 2,852-84—giving any range of throw, instantly alterable while riding, which was perfectly satisfactory, and had no real drawbacks, and stood the test of thousands of miles of riding.

"Now, the principal reasons of the non-commercial success of these two inventions were the foolish and unfounded objections raised to them by people who had no knowledge or experience of them, and who considered it their duty to invent imaginary drawbacks to the use of anything new.

"One great and damning objection raised to these two inventions was that they were both accompanied by a free wheel, and this, I was told, in spite of my knowledge to the contrary, and in spite of any demonstration I could make to the contrary, was a defect that would absolutely stop their sale, as I was assured 'no machine would ever sell in numbers, no matter how powerful its brakes were, where back-peddalling was impossible.'

"I may mention that in the case of the variable gear I was told that it had too many variations, and that if they were reduced to, say, four, the gear certainly would be improved. In 1894 I made another effort and produced the 'Protean' gear, which was an expanding and contracting chain wheel on the bottom bracket axle, giving four ranges of gearing, and was necessarily accompanied by a free wheel. This gear I exhibited in the Stanley Show of 1894."

The Retail Record.

CHANGES.

Dansville, N. Y.—H. E. Toms succeeds C. J. Fritz.

Elmira, N. Y.—A. Samuels advertises closing out sale.

Elmira, N. Y.—John C. Gallagher, 102 Exchange street, will remove to 309 East Water street.

Rochester, N. Y.—Tower & Bull, 62 Monroe avenue, advertise closing out sale of bicycles.

NEW STORES.

Windham, N. Y.—Mack & Jenne.

Dover, N. H.—J. J. McCarty, Locust street, repairing.

Cheshire, Mass.—Curran & Powers, branch of Adams store.

Manchester, N. H.—Harry Noyes, Massabesic and Belmont streets.

"How to Drive a Motorcycle." See "Motorcycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York. ***

WANTS AND FOR SALE.

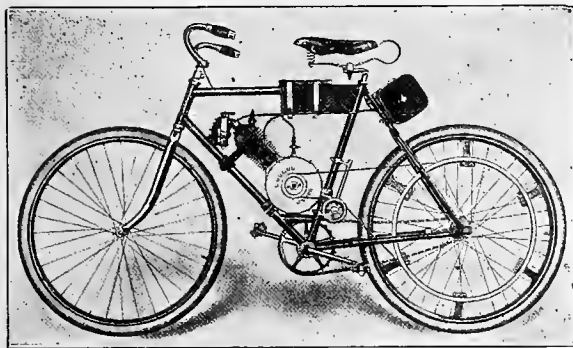
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The MERKEL MOTOR CYCLE with its Single Lever Control is certainly a GREAT STUNT.

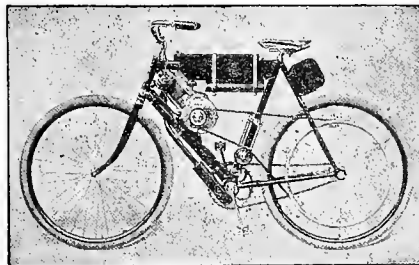
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"The second machine you sent me I sold to an agent and he averages about 50 or 60 miles a day and does it in 10 hours and transacts his business. When he used his horse he was on the road and railroads from 5 o'clock in the morning until 10 o'clock P. M.; so you see he appreciates it very much and his machine runs like a charm."

We also make the best tricycles and quads in the land, and are selling lots of them. It doesn't take all of your money to buy 'em.

E. R. THOMAS MOTOR CO.,

106 Broadway, Buffalo, N. Y.



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STEEL BALLS

The Best in the World.

EXCELSIOR MACHINE CO., BUFFALO, N. Y.

The Week's Patents.

676,891. Cylinder head for Motors Operated by Heated Gas or Air. Edmond Heirman, Mont-sur-Marchienne, Belgium. Filed August 18, 1900. Serial No. 27,295. (No model).

Claim.—The combination with a cylinder having a tapering end, of a removable head or breech having valve chambers therein, an inner wall forming a seat fitted to the extremity of the tapering end, and part of the valve chambers, a combustion chamber in communication with said valves and opening into the cylinder being formed between said inner wall and the rear outer wall, an extension of the outer wall having a seat fitted to the tapering end in advance of the first mentioned seat, a water space being formed between said inner and outer walls, said space being closed between the seats in the inner wall and the said extension by the cylinder whereby an annular chamber is formed about the same with extensions around the combustion and the valve chambers and means for retaining the breech in place.

677,080. Bicycle Support. Friedrich Heintz, New York, N. Y. Filed October 9, 1900. Serial No. 32,471. (No model).

Claim.—The combination, with a bicycle; of a bracket connected with the same at the seat support and comprising two spaced arms, other brackets connected with the bicycle at either side of the rear wheel, and side or brace members slidably and revolvably supported by said brackets and arranged at either side of the rear wheel, said side or brace members being operatively connected at their upper ends by a single handle device, each of said side or brace members consisting of an angular body rod which is bent at its lower end to form a supporting toe and a separate brace rod completing the triangular formation of each side or brace member and connected with the respective brace rod at a point adjacent said toe and at a point between two of said brackets, each of said side or brace members being so operatively connected with one of said brackets that said side or brace members may be adjusted by said handle device downwardly and laterally into operative position and upwardly and inwardly into retracted position.

677,079. Bicycle. Jacob R. Guiley, Saginaw, and James H. Pierce and James E. Wright, West Bay City, Mich. Filed March 27, 1900. Serial No. 10,358. (No model).

Claim.—1. In combination with the main frame of a bicycle having a downwardly extending seat post tube; a seat post yieldingly mounted on a spring within the seat post tube; a crank hanger normally resting against the lower end of the seat post tube, but capable of downward movement independent thereof; a pair of rods, one on each side of the seat post tube, pivoted at their upper ends to the seat post and attached at their lower ends to the crank hanger; guides on the inner surfaces of said rods for engaging similar surfaces on the bicycle frame; a pair of rearwardly extending rods pivoted at their rear ends to the main frame at or near the centre of the rear wheel, and pivoted at their front ends to the crank hanger; and turnbuckles in said rearwardly extending rods for adjusting their length, substantially as described, and for the purposes set forth.

677,152. Acetylene Gas Generating Lamp. Charles W. Beck, Chicago, Ill. Filed August 2, 1897. Serial No. 646,718. (No model).

Claim.—1. In a lamp for generating and

burning acetylene gas, the combination of a carbid receptacle adapted to confine the carbid and the residue provided at one side with a substantially imperforate movable wall or follower, a spring arranged to hold said movable part in yielding contact with the body of carbid and means for feeding water to the carbid.

677,237. Cyclometer. James A. Keyes, New York, N. Y. Filed February 26, 1900. Serial No. 6,460. (No model).

Claim.—1. In a vehicle, the combination with a non-rotating axle thereof, the wheel thereon, said wheel being provided with an engaging projection, of a cyclometer supporting base mounted upon the axle, clip bolts engaging the cyclometer base and axle, and securing them permanently together, and the cyclometer attachable and detachable from the supporting base and operatively arranged with said wheel projection by attachment to said base.

677,283. Oil Feed Device for Explosive Motors. John A. Secor, Brooklyn, N. Y., assignor to the General Power Company of New Jersey. Filed September 11, 1900. Serial No. 29,712. (No model).

Claim.—1. The combination with the oil cup in a feed mechanism for supplying liquid fuel to explosive motors, of means for providing a relatively higher level of the fuel in the cup for the normal working of the motor, means for retaining at a relatively lower level the fuel in the cup when the motor is not in motion, means for feeding fuel from the cup to start the motor into active operation from the vacuum or partial vacuum induced in a cylinder by an initial motion of the piston therein, and means for automatically feeding the fuel from the higher level in the cup to the motor in its subsequent active or working operation, substantially as herein set forth.

677,290.—Pneumatic Tire. Pardon W. Tillinghast, Edgewood, R. I. Filed August 2, 1900. Serial No. 25,714. (No model).

Claim.—1. In a pneumatic tire a strengthening fabric, consisting of a plurality of layers or plies, successive plies having a more open weave or construction than the preceding plies, forming a fabric with a broken plane or surface line, completely filled in and around with rubber, substantially as described.

DESIGNS.

34,693. Tricycle Frame. George W. Miller, Buffalo, N. Y. Filed May 23, 1901. Serial No. 61,626. Term of patent seven years.

Claim.—The design for a tricycle frame, substantially as herein shown and described.

TRADEMARKS.

35,657. Bicycles, Tricycles and Parts Thereof and Accessories Thereto. Stearns Bicycle Agency, Syracuse, N. Y. Filed March 23, 1901.

Essential Feature.—The word "Regal." Used since October 1, 1900.

Buys a Glue Bottle.

Cushman & Denison, long known as makers of the "Perfect" Pocket Oiler, Gem Paper Clips, etc., have just purchased the patents covering the "Perfect" Mucilage Bottle. The bottle embodies a water chamber which prevents gumming, thickening and evaporation of the contents. It is made of frosted aluminum, rendering it practically indestructible, and retails at 50 cents.

The Week's Exports.

As usual, England and Germany were last week large buyers of American cycle stuff. New Zealand was, however, the largest purchaser and Japan was well up on the list with a shipment valued at \$3,503. The record in detail the week closing June 25 follows:

Antwerp—2 cases bicycles, \$75; 27 cases bicycle material, \$535.

Alexandria—1 case bicycles, \$24.

Abo—3 cases bicycles, \$118; 2 cases bicycle material, \$55.

Argentine Republic—9 cases bicycle material, \$613.

Bremen—3 cases bicycles, \$75; 5 cases bicycle material, \$203.

Berlin—1 case bicycles, \$100.

British East Indies—4 cases bicycles and parts, \$393.

British Possessions in Africa—10 cases bicycles, \$1,113.

British Australia—35 cases bicycles and parts, \$1,122.

British West Indies—18 cases bicycles and material, \$408.

Copenhagen—16 cases bicycles, \$190; 18 cases bicycle material, \$726.

Christiania—6 cases bicycles and parts, \$185.

Christiansand—1 case bicycle material, \$25.

Cuba—103 cases bicycles and material, \$175.

China—1 case bicycles, \$46.

Cairo—2 cases bicycle material, \$79.

Ecuador—2 cases bicycles, \$35.

Glasgow—7 cases bicycles, \$210.

Genoa—1 case bicycles, \$25; 34 cases bicycle material, \$1,915.

Hamburg—46 cases bicycles, \$2,154; 57 cases bicycle material, \$2,655.

Hong-Kong—3 cases bicycles, \$115; 1 case bicycle material, \$35.

Havre—33 cases bicycles, \$905; 42 cases bicycle material, \$795.

Japan—78 cases bicycles and parts, \$3,503.

Lancaster—4 cases bicycle material, \$435.

London—49 cases bicycles, \$1,995; 64 cases bicycle material, \$1,846.

Liverpool—61 cases bicycles, \$1,525; 8 cases bicycle material, \$256.

Mexico—6 cases bicycles and material, \$161.

Newfoundland—11 cases bicycles and material, \$394.

New Zealand—203 cases bicycles and material, \$5,414.

Nova Scotia—2 cases bicycles, \$70.

Philippines—16 cases bicycles and parts, \$1,705.

Rotterdam—34 cases bicycles, \$1,258; 25 cases bicycle material, \$678.

Siam—1 case bicycle material, \$65.

Stockholm—1 case bicycle material, \$125.

St. Petersburg—2 cases bicycle material, \$302.

Tasmania—5 cases bicycles and material, \$369.

Turin—53 cases bicycles, \$1,664.

Uruguay—4 cases bicycles and material, \$121.

"Motocycles and How to Manage Them"; 126 pages, 41 illustrations; cloth bound. \$1. The Goodman Co., Box 649, New York. ***

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A New England Trio.

For years New England north from Boston has been frequented by the vacationist and health seeker. The first and most important feature which has made the region famous is the health giving atmosphere; and this, with delightful scenic surroundings, comfortable abiding places, an abundance of methods for diversion, coupled with unexcelled travelling facilities, suffices to make the territory a most superior and much sought outing place.

Northern New England is really divided into three principal resort regions, viz., Mountains, Sea Shore and Lakes; and for six cents in stamps the General Passenger and Ticket Agent of the Boston and Maine system, Boston, will send you a trio of booklets, known as "Among the Mountains," "Lakes and Streams," and "All Along Shore," and with them you will get a tour book which is overflowing with information of benefit to travellers in Maine, New Hampshire and Vermont. This company issues a variety of illustrated descriptive books which are listed in a readable index, and if you want to know about them, drop a postal to the above address. ***

Valve Caps and Their Uses.

Not a few riders appear to think that the sole function of the valve cap is to prevent leakage of the tire. If the valve works properly and no air gets past it they become careless about the cap, not infrequently neglecting to use it at all.

As a matter of fact, the cap is intended quite as much for preventing the ingress of dust to the valve as anything else. The valve should be air tight; that the majority of them are not is quite beyond the mark; nevertheless, that fact is the one most strongly impressed on the average rider, and he quite loses sight of the other function of the cap. Consequently dust keeps getting in the entrance to the valve, whence it is blown up into the various parts of the valve, and even into the tire.

It is not surprising, in view of this, that the valve frequently gets out of order. Instead of blaming it, therefore, riders should be more careful and see that the cap is kept in its place. They can profitably go further and see that the pump connection also is clean, as any dust contained in it is inevitably forced into the valve or tire.

If we spent

\$1,000,000

in advertising some people would still use cheap and leaky oilers. Spend a few cents more and get a "**PERFECT**" Pocket Oiler. You will be well repaid.



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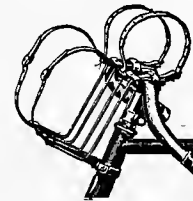
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IN THE REEVES
Ideal Spring Seat Post.

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Members of the American Trade visiting England are invited to call at THE CYCLIST Office at Coventry, or at 3 St. Bride Street, London, E. C.

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STOPS LARGE PUNCTURES.

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TEMPLETON	18.00	14.40	10.40
ATHOL	16.90	13.70	10.45
WESTFIELD	15.30	12.50	9.20
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Class A. On sale daily, and good for passage in either direction May 1st to Oct. 28th, final limit Nov. 2d, and in Pullman cars on payment of additional charges for such accommodations.

Class B. On sale daily, and good for fifteen (15) days, including date of sale, and for continuous passage only in each direction; and are non-transferable, requiring signature of purchaser, and must be stamped by agent at Buffalo or Niagara Falls before same will be good for return passage. Good in Pullman cars on payment of additional charges for such accommodations.

Class C. On sale daily, and good for eight (8) days, including date of sale, and for continuous passage in each direction, and in day coach only, as per contract of ticket. Not good in Pullman Sleeping or Drawing Room Cars or on limited trains. Tickets are non-transferable, and require signature of purchaser, and must be stamped by agent at Buffalo or Niagara Falls before same will be good for return passage.

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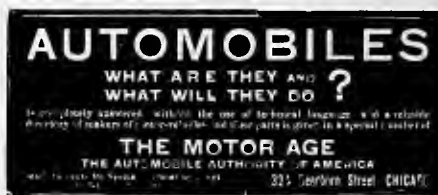
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The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., July 11, 1901.

No. 15

INDEPENDENTS MEET

Get Together in Buffalo and Plan for a Further Strengthening of Front.

Buffalo, N. Y., July 6.—In response to the invitation issued by the Cycle Makers' Protective Association to the entire independent trade, there gathered here to-day an assemblage which included almost every manufacturer of note outside the Trust, as well as nearly all the prominent makers of parts.

The meeting was an entire success, the objects for which it was called being completely attained, and most gratifying to everyone concerned. Two sessions were held, morning and afternoon, at both of which those present were privileged to hear some highly interesting remarks by Mr. Dyrenforth, counsel of the C. T. P. A. in the famous bottom bracket suit. Mr. Dyrenforth's statements made a deep impression, opening the eyes of many to the extent and thoroughness of the work done.

"In unity there is strength," was the keynote of his remarks and the practical response proved that if the hopes of the other side lay in the direction of disintegration or falling to pieces of the independent organization they are doomed to disappointment.

The meeting proved that all are keenly alive to the situation, and while the most absolute confidence prevails no stone will be left unturned to make assurance doubly sure.

The independent trade is a unit on that point and is solidified stronger than ever before.

Judgment Forces Failure.

An assignment was made last week by the Leader Mfg. Co., of Toronto, Canada, Henry Bennett being named as assignee. The amount involved is small. A meeting of the creditors has been called for July 10. Recently the Canada Cycle and Motor Co. obtained judgment against the company for \$844, and this, together with the issue of a writ for a claim of \$302 by the Bank of Commerce, precipitated matters.

Suit Over Name Dunlop.

In the United States Circuit Court at Pittsburgh, Pa., last week, a bill in equity was filed by the American Dunlop Tire Co., of Belleville, N. J., against the Pennsylvania Rubber Co., of Erie, Pa., asking that the defendant company be restrained from the further use of the name "Dunlop" in the marketing of its products. An accounting is also asked.

It is asserted that the Erie concern has been making a rubber pneumatic tire and inner tube which it has been selling as "Dunlop" goods. The plaintiffs say that the name has become a trade mark and ask that the defendant company make amends for its use of it and be restrained from using it hereafter. Affidavits accompanied the statement, showing the goods have been sold.

The motion for the preliminary injunction was heard on July 6 by Judge Acheson, who reserves his decision.

Dunlop Reduces Prices.

The English Dunlop Tire Co. has finally issued its new price list, which carries with it a considerable change of both figures and policy.

The principal feature is the abandonment of the system of rebates in favor of a sliding scale of prices. The larger the order the lower the price, but "cutting" is to be avoided by an agreement in all contracts compelling both wholesalers and retailers to sell at fixed prices.

Tires complete are reduced 2s. per pair, rims have been reduced to 1s. 3d., and generally there are corresponding reductions. The guarantee covers thirteen months instead of twelve, as heretofore. The list is said to be only a temporary one, as a new schedule is to be issued on October 1, when other changes are probable.

President Cheever Dead.

John H. Cheever, president of the New York Belting and Packing and Mechanical Rubber Companies died on Tuesday last at his home at Wave Crest, Far Rockaway, N. Y. He was seventy-seven years old and had been an invalid for six years. His wife and four adult children survive him.

ASSESSMENT DOUBLED

Indiana Authorities Assert Trusts are Dodging Taxes and Raise Waverley Valuation.

An increase of more than 100 per cent in the assessed value of the old Indiana Bicycle Co.'s plant at Indianapolis, Ind., is the unpleasant surprise the County Board of Review has prepared for the American Bicycle Co., the present owner of the property.

The Board of Review has been stirred to activity by the abnormal shrinkage in the returned values of a number of properties now in the hands of trusts. The Indiana plant is only one of these. The list furnished the assessors by the American Bicycle Co. for the personal property in this factory reported the aggregate value, exclusive of real estate, to be \$67,015. Before it became a part of the Trust it reported the property at \$144,775. The Board put the assessment back to that figure, and the Trust will have to pay taxes on that amount.

Assessor Jefferson says almost all the trusts are attempting to evade taxation. The lists for their branches all over the country are made out at the headquarters, generally in some Eastern city, and then mailed to the various assessors. He refused to accept a number of them, but obtained no rectification by mailing them back.

Receiver Gets His Discharge.

A motion was granted last week in the Toledo (Ohio) Common Pleas Court whereby T. B. Terry was discharged as receiver of the Maumee Cycle Co. in the case that was brought against it by the First National Bank.

Mr. Terry was discharged for the reason that he had wound up the business in his hands and distributed the assets of the company.

Judgment Against Monarch.

Judgment for \$1,147.65 in favor of J. B. Hicks vs. the Monarch Cycle Mfg. Co. was entered in this city on Saturday last.

JOY IN JOB LOT

How One Man Found it and How and Why he Now Pesterns the Dealer.

"It is almost beyond belief, the contrary way some tires will behave," remarked the dealer, who was in a confidential mood. "You can depend on their doing what you least expect."

"I have a customer who is bothering the life out of me to get him a pair of tires 'just like the last pair.' He won't take anything else. They were so entirely satisfactory that he feels that life would lose its savor if he were not able to obtain duplicates."

"The worst of it is that I don't know the name of the tires, and haven't the slightest idea who made them. I sold them to him in the first place. That is the reason he comes to me for a second pair. I have told him that I can't find out where they came from, but he keeps worrying me and asking me to try again to learn the name of the maker. In an unwary moment, and out of sheer desperation, I told him that I would try. Since then I have had little peace."

"It happened this way: Nearly two years ago I bought a job lot of cheap and nameless tires. I hated to have anything to do with them, but my customers demanded them, and I found that I was losing trade by not keeping them. So I got these, and in the course of time sold them. Most of them turned out bad—just as might have been expected—and I got more than my share of the blame for them; this notwithstanding I had damned them before selling quite as heartily as the buyers did after using them."

"Among the tires, however, was the pair the customer referred to had the good fortune to pick out. They were scarcely to be distinguished from the dozens of others, except, possibly, that they were a little lighter. But they had no name or mark of any kind on them, and their purchaser picked them out quite at random. By this time, however, he persuades himself that he knew at the beginning just how good they were."

"Well, to make a long story short, these tires turned out to be extraordinarily good. If he had paid four times the price for them he could not have gotten better tires. They ran nicely, were resilient and, above all, extremely durable. For the best part of two years they were used constantly, and even the most hypercritical rider could not have found fault with them. I doubt if any of the first lot lasted the season out. But this pair did that, and the whole of the next one and part of this."

"About a month or six weeks ago, seeing that they were on the down grade, their owner came to me for another pair just like them. He launched out into the most extravagant laudation of the tires, and said he would never ride any other make. Even

when I told him that I was not sure I could duplicate them—I was afraid to tell him the truth—his confidence was not shaken."

"Since then I have used every possible means to trace those tires to their source, but without avail. The jobber from whom I bought them made an effort to find where they came from, but soon gave up in despair. You might about as well look for a needle in a haystack."

"The rider is a very persevering man, and he won't give up. He is still managing to ride the old tires, although they are getting more disreputable every day. He keeps coming in here every day or so, calling out, 'How about those tires?' until I feel like throwing him out. That's what it will come to some day, I suppose."

Winding up Without Debts.

After being in a moribund condition for several years, the Columbus Bicycle Co., of Columbus, O., is to be wound up. This is the decision that has been reached by George H. Kelly, Clayton K. Gouver, George Cook Ford, Francis G. Coates and Paul Walton, stockholders in the concern, who have filed a petition asking the courts to dissolve it. They state that the capital stock is \$50,000, divided into 500 shares.

They say they are directors of the company, which was organized to manufacture and sell bicycles. They state that the company has no debts, but it is desirous of abandoning the business because the objects of the company have wholly failed. They say that all engagements have been satisfied.

The Columbus company was one of the many that came with the "boom" and was left high and dry when the tide flowed out. Of late it has cut no figure in the trade.

Dunlop Capital to be Cut Down.

When the stockholders of the Dunlop Tire Co., at their meeting held some weeks ago, passed favorably on the directors' suggestion that a reconstruction of the company was desirable, it was generally expected that a plan looking to this end would shortly be promulgated. This belief appears to have been realized.

Cable dispatches from London, under date of July 8, state that a circular has been addressed to the stockholders proposing a reduction of capital from £4,573,200 to £3,213,200.

Further particulars will be awaited with interest, as it is no secret that the holders of some classes of the securities think that the cheaper shares should suffer the greatest cutting down.

Three Buyers from Abroad.

Chr. Anchen and Chr. Gottschalk, of Copenhagen, and Romain Tallbott, of Berlin, arrived in the city late last week and are all stopping at the Broadway Central Hotel. Each is a prominent importer of American cycles and accessories and is here to make purchases.

HINE IS CHEERFUL

Despite Rain, His Lamp Trade Increased 18 Per Cent—His Mail-Order Views.

L. A. Hine, president of the Hine-Watts Mfg. Co., Chicago, is among the visitors in New York this week.

Unlike so many tradespeople since the rain changed their rose hues to indigo, there is no indigo coloring in Mr. Watts's utterances. He reports that, despite the adverse conditions, the sale of Columbia gas lamps increased 18 per cent over the corresponding period of last year, and this despite the fact that he has held resolutely to a \$1.95 price. Naturally he has no cause for complaint.

Mr. Hine, like nearly every one else, finds it difficult to reason why the demand for lamps is so much stronger in the West than in the East. East of Ohio, he says, the demand lacks force and activity.

Talking of the mail-order plague which centres in Chicago, Mr. Hine dubbed the mail-order people "the pirates of business" and shrewdly ventured the opinion that "they must be cutting into the bicycle manufacturers considerably." He related one instance of his experience with the notorious house of Sears, Roebuck & Co., which shows their highly honorable methods, and which forever ended his dealings with them.

The Hine-Watts Co. had on hand some 300 out-of-date Columbia lamps, for which Sears-Roebuck made an offer. The offer was accepted conditional on their being catalogued and sold for not less than \$2 and not represented as new goods. Sears-Roebuck accepted the conditions readily, and as promptly went ahead and listed the lamps as up-to-date goods and at 55 cents less than the agreed price.

Mr. Hine says that despite their bluster, the mail order houses cannot have a wholly happy time of it. While they ship perhaps twenty carloads of goods per day, he understands that on an average nine or ten carloads of it are returned by disappointed and disgusted buyers.

"If ever the market is cleared of job lots and old stock," remarked Mr. Hine, "the mail-order people will have a hard time of it."

Harpoot Holds Promise.

The Bicycling World's search of the world for data for its export editions has uncovered Harpoot, Turkey, as a market of considerable promise. A former Hartford (Conn.) man has just opened a store there and is doing well, both roads and conditions being favorable, although the climate is a little hard on tires. The United States Consul at Harpoot, Thomas H. Norton, was the first man to use a bicycle there, and his use of it aroused the Turks and Armenians to quite a pitch of interest.

FRENCH MAKES FAULTY

Archaic Features in Plenty Found on the Latest Pattern Gladiators.

Whatever else may be said about American bicycles, it must at least be admitted that they have individuality stamped all over them. Even when they have points in common, when the cut-and-dried appearance that must necessarily be in evidence somewhere is most pronounced, there is a saving touch here and there which redeems the machine from a dull and deadly monotony.

These reflections were called up by the sight of a couple of French machines which the *Bicycling World* man obtained a short time ago. They belonged to Linton, the Welsh racing man, now in this country. Even the most superficial observer would have found it difficult to mistake them for machines of home manufacture.

English bicycles are not often seen in this country nowadays. But French ones are even more rare. Consequently when an opportunity was presented of examining two of them it was made use of without delay. In reply to the question Linton said that they were this year's machines, consequently the latest pattern and a fair sample of the product that has almost supplanted British bicycles in the French markets. The fact that they were of the famous "Gladiator" make but adds interest to the comparison.

It must be said at the outset that the machines are bald copies of the best examples of English manufacture. In a few particulars, however, they are of antiquated design even by comparison with the latter—notably in having the old-style small hubs with large flanges. In fact, almost exact counterparts of these machines were on exhibition at the World's Fair in 1893—the product of English factories.

All the old, familiar English features were there. Three-piece crank-hanger construction, of course, with the cranks fastened to the axle by means of cotter pins. Handle bar and seat post fastenings were of the external type—split tubes drawn together by bolts and nuts. The handle bars were not adjustable—meaning thereby that the cross-bar was brazed fast to the stem—although the stem had an extension which carried the bar forward about three inches.

The good old "shroud" or flange was machined on each sprocket wheel, notwithstanding it is now considerably out of favor even in England. Double-plate fork crowns of the aggressively square type, outside joints, perfectly straight upper rear forks, large tubing, big, comfortable-looking saddles, extremely narrow treads, fairly short wheel bases, lower rear forks with a double bend in them to accommodate the front sprocket wheel—these were some of the other features

that distinguished the machines from those of American manufacture.

To judge entirely by appearances, the machines seemed heavy. Everything looked massive, the furthest possible removed from the featherweight. But appearances were deceptive. One had but to lift them to discover this.

Stripped of everything not needed and equipped with light tires and rims, the machines did not scale very much in excess of twenty-one or twenty-two pounds. In this respect they will not suffer materially by comparison with American racing machines—certainly not to any marked extent.

In spite of this, however, it must be admitted that the machines are decidedly archaic in most of the features referred to. At the same time, foreigners as a rule like cotter pins and external fasteners, outside joints, etc., and as they pay the piper it is certainly their privilege to do the dancing.

They might be educated sufficiently to appreciate more modern devices, but it is slow and costly work educating people. Many makers will conclude that it is better, and cheaper, to give them just what they want.

Straus's Good Suggestion.

The point that the Strauss Rubber and Tire Co. make in their ad. in this issue is well taken—that the applying of solid rubber tires to carriages and other vehicles is a business in which cycle dealers and repairers may well interest themselves. It is a field of work that should dovetail well with cycle repairing and is one that certainly merits inquiry.

Liabilities Largest Item.

William A. Bremer, a Milwaukee (Wis.) bicycle manufacturer, filed a petition in bankruptcy in the United States Court last week, scheduling his liabilities at \$3,761.89 and assets at \$2,253, of which \$350 is claimed to be exempt. He says he has a stock on hand valued at \$1,250.

Where Coal Trade Hurts Cycles.

While the war in China naturally affected all exports, the sale of bicycles has been interfered with not so much by the warfare as by a little-suspected cause that followed.

"The increased traffic in coal following the trouble," writes a correspondent in Chefoo, "has ruined the streets and roads, and as a result it is now impossible to use a bicycle."

Francis Fails.

J. J. Francis, a prominent dealer of Boston, has failed. He was formerly manager of the Liberty branch in that city, but purchased the business about two years ago and has since conducted it on his own account.

"The Motor: What It Is and How It Works." See "Motocycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York, ***

STAR AND STRIKER

These Two Little Cyclometer Parts May Give Trouble—The Remedy.

In the more than twenty years that it has taken to complete the evolution of the cyclometer, wonderful changes have taken place in this marvellous little instrument. It is to-day—as far as the best makes are concerned, at least—about as near perfection as even the most critical could desire.

In the dozen years or so that have elapsed since the safety came into general use the cyclometer has undergone its greatest changes. As used on the high wheel it was heavy—the Lakin weighed about three and one-half pounds—and not over-reliable. When the necessity for attaching it to the wheel axle was removed, however, it became an easy task to improve it. The results speak for themselves; accomplishment could scarcely go further.

Even at the present time, however, all cyclometers are not perfect, nor are their users beyond criticism. Complaints are heard occasionally. Some of the trouble may arise from bad fitting, some from defects in the instruments themselves. The latter are difficult to remedy, the former should not exist.

One of the defects in fitting which often happens, and can be easily overlooked, is that the striker turns more than one tooth of the star wheel at a time. This does not mean that the striker takes two teeth at every revolution, but that the striker takes a tooth at a time, occasionally taking two teeth, or sometimes actually missing a tooth and taking it on the next revolution.

This may arise from two causes; the first is that the cyclometer may not be adjusted at the best distance from the striker, so that if there be any slight difference in the length of any teeth on the star wheel it may engage with two, or many miss one, according as the bad tooth is longer or shorter than its fellows. Then another cause may be that the star wheel fits loosely in the cyclometer, in which case the striker may take the teeth properly when travelling at ordinary speeds, but when excessive speed is applied the impact of the striker on the star wheel tooth may be enough to propel the latter round further than it would leave it in the ordinary way, and then at the next revolution the striker instead of taking the next tooth will engage with the one after it, thus moving the star wheel round two teeth instead of one.

The remedy of this fault is obviously to make the star wheel sufficiently tight to preclude the possibility of its moving round any further under the impact than the striking pin will actually carry it.

THE WONDER WHEEL. THE RACYCLE.

The only wheel that saves a rider's strength.

Never cuts price during a season.

Never carries a stock over a year.

New goods each season, and no 1899 Racycles to offer at any price.

No Jobber's prices. No juggling price.

Never scrape together a lot of old frames and fittings to sell to mail-order houses for our agents to compete with.

We sell to dealers only.

There are no cheap RACYCLES.

Honest Goods and Honest Prices.



THE MIAMI CYCLE & MFG. CO., MIDDLETOWN, OHIO.

Nelson S. Davis, Providence, R. I., New England Agent.

Frank M. Jones, Sacramento, Cal., Pacific Coast Agent.

George E. Hannan, Denver, Col., Colorado Agent.

"At the foot of Mount Hood."

PORTLAND, OREGON, AND THE COLUMBIA RIVER

Possess attractions that would require volumes to detail; but an agent of the

NEW YORK CENTRAL LINES

will gladly give you full information as to the best route to take to reach this delightful region.

A copy of No. 5 of the "Four-Track Series" will be sent free, postpaid, to any address on receipt of a postage stamp, by George H. Daniels, General Passenger Agent, New York Central & Hudson River Railroad, Grand Central Station, New York.

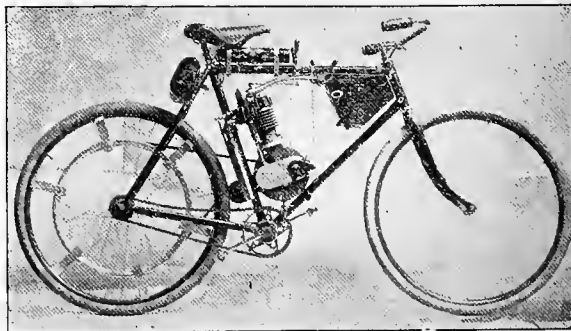
WHAT'S THE USE of Standing Astride the Fence?

You know what the proverbs say: "The man who hesitates is lost"; "Faint heart ne'er won fair lady," etc., etc.

GET OFF THE FENCE!

If there's "nothin' doing" in your locality, get off the quicker. It's time you interested yourself in motor cycles. You can't do it too soon, and you won't be able to find so good a motor bicycle as

THE MARSH.



It will draw crowds to your window and fill your store with probable buyers. If you know how to talk, the rest is easy.

The Marsh has features all its own; you can't afford to overlook them. It will give an invigorating

TONIC FOR LANGUISHING TRADE.

Our catalog is interesting; our offer to agents is full of magnetism. They may be the means of getting you off the fence. Write us.

✉ MOTOR CYCLE MFG. CO., BROCKTON, MASS.

THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should

Address us at P. O. Box 649.

NEW YORK, JULY 11, 1901.

The Two Types of Dealers.

In their advertisement in this issue the Bevin Bros. Mfg. Co. strike a keynote in dividing dealers into two classes—those who sell goods and those who merely keep goods for sale.

The designation is both apt and truthful. It expresses in the fewest possible words the two types of merchant and the two systems of retailing that prevail. No man need leave his own town to find numerous examples of each type and each system. Which is the majority is a debatable point.

But, however that may be, the merchant who buys a stock of goods of, let us say, bicycles and sundries, and arranges the one in racks, the other on shelves, and then believes he has done all there is to do, is far more numerous than he should be. He is, of the type who keeps goods for sale and sells them when they are called for. The type varies in degree. Occasionally a merchant of the kind will place a wheel in his win-

dow and his business card in his local paper and keep them there for months without change; he thus deludes himself into believing that he is of the "upper" or more alert class of retailers. If sales fail to come to him he attributes it to every cause but the right one—himself.

The other type—the more alert class, the class in whom the shopkeeping instinct is keenly alive—buy goods to sell them, not merely to keep them for sale. They do not wait for sales to come to them; they go after the sales. They bring people into their stores; they do not wait for them to "drop in." They appreciate that their show window is a magnet, and that the strength of its magnetism is measured only by the originality and attractiveness of the display which it contains and the number of times the display is changed in the course of a season. This type of merchant appreciates that the mere publication of a name and address, and perhaps a picture of a bicycle, in a paper attracts no attention, creates no impression, excites no curiosity, and draws no one toward his store. He acts accordingly. He makes his ad. say something—say something different each week—and he says it just as differently from the "other fellow" as he possibly can. He realizes also the power of a well-worded letter or circular letter, and makes use of it. He knows the value of novelty—of being the first to obtain and to display and advertise a new or novel article in his line; he is ever on the lookout for it, gets it and "skims the cream" while his lackadaisical competitor is "thinking about it." He knows that dimes make dollars, and while the sale of the dollar article is ever in his mind he does not neglect the ones that bring in the dimes. He does not keep his sundries on a shelf or in an obscure showcase. If he is a dealer in bicycles he knows that it is with sundries that he can make the most varied window displays and that he can "set off" his store. He knows when and how to "lead up to" and attempt selling a sundry article to the patron who has purchased a bicycle, or a bicycle to the purchaser of a sundry. He knows how to "follow up" a first attempt with a second and, if need be, a third or a fourth attempt. He knows—but we have said enough to make clear the difference between the two types.

The question that every dealer should ask himself is: "In which class am I? Do I really try to sell goods, or do I merely keep goods for sale?"

If he finds himself in the latter class he should do one of two things—quit or radically change his ways.

Sprocket Designs are Simpler.

A very curious study is that of front sprocket wheel designs during the past decade.

Changes have been many and great. Not the least of them is the return, which is slowly but surely taking place, to the old straight arm sprocket wheels.

The time was when they were in very general use. Sprocket wheels were a detail then, and no one gave any particular thought to their design. Even the number of their teeth was not a vital matter.

The era of refinement changed all that, however. Sprockets of the most elaborate and bewildering design sprang up like mushrooms in a night. The handsomest or most striking styles were eagerly sought after. Sales were even affected by this apparently trifling matter.

The reaction set in several years ago, however. Simplicity is the watchword now, and the tide is setting stronger and stronger in this direction.

No one who looks closely can help being impressed with the large number of five and six arm sprockets now used.

They are seen everywhere, and there is little doubt that they are destined to have a long lead in the near future, if they have not got it already.

Are Instructions Needed?

There is a disposition on the part of some superficial observers to criticise coaster-brake makers for not sending out with their goods instructions embodying ironclad rules for their use.

A dozen different crank positions are used, say these critics, whereas there is but one right one—that with the cranks horizontal. Riders should have this pointed out to them, so that they could start right.

They should also be warned against jamming the brake on suddenly, they continue. It is much better to back-pedal slowly and carefully, thus checking the speed gradually and avoiding injury to the machine and tires. Instead of doing this, however, they jam the brake on, heedless of the consequences.

There is some truth in the second portion of this indictment. The novice in the use of the coaster-brake reckons little of the enormous power contained in it, and frequently uses it recklessly. Besides, he is usually nervous,

and when the necessity for checking speed arises he makes assurance doubly sure by using more force than is really necessary.

This is a matter that soon corrects itself, however. It is doubtful whether any printed instructions would have effect on an excited rider. But one or two disastrous experiences will teach him a lesson that he will not soon forget.

The only harm likely to result from a too powerful application of the brake is injury to the tire. If the rear wheel is locked the tire may be torn loose from the rim, but this will happen only in extreme cases. Few riders will transgress a second time.

As is the case with the front-wheel tire brake, or any other pattern, the rider will soon learn to apply it with judgment. A little practice is all that he requires.

As to the position of the cranks, that is an old story, and has long been a fruitless topic of discussion. It never can be settled, for the simple reason that what is one rider's meat is another's poison.

At the beginning a rider will either adopt at once the position that he finds suits him best and keep it, or he will experiment until he is able to make an intelligent choice.

One will keep the cranks in a vertical position, another will prefer them horizontal, while a multitude will hit upon minute variations, or even vary the position for the sake of change.

But printed instructions would not help them much, and would be more likely to confuse them.

What Can be Done.

Bearing in mind the oft-quoted fact that ninety-five per cent of those who engage in business fail sooner or later, it is not altogether surprising that there are so many laggards in the retail cycle trade.

It takes a well-equipped man to conduct a retail store successfully. He must be resourceful, energetic, tactful. Usually he must be willing to work hard for a small remuneration, and to take risks out of all proportion to the probable return. Equal effort in another direction would almost certainly result in less mental strain, even if financial improvement did not also come.

Of retail storekeepers, those in the cycle trade fare even worse than the average.

There are exceptions, of course. But the great majority of dealers have their noses kept down to the grindstone and see good reason to congratulate themselves if they manage to extract a decent living from the year's work.

If this state of affairs breeds indolence and incapacity it is scarcely to be wondered at. Yet it will hardly be contended that it is a good excuse.

There are not wanting many instances of dealers being spurred on to greater efforts by the exigencies of the case.

There are scores of cities and towns where a dealer can be pointed out as a living example of this. Such men take the aggressive and win success by main force from an unwilling destiny.

They go out into their little world and seek business. They impress on others the fact that they have bicycles, sundries, parts to sell, and that they do repairing and in other ways hold themselves in readiness to cater to the public wishes.

They take pains to make it plain that they are alive. In small and unpretentious establishments they frequently accomplish wonders. The amount of work they turn out is prodigious, and they keep at it all the time. When things get dull they scheme and scheme, and devise ways of making them brisk. No minute hangs idle on their hands.

All dealers cannot be so successful. But they can bid for success and make a better showing than would be possible if they sat and grumbled during the dull spells.

"It is no doubt an old story to you, but it gives me pleasure to say that the *Bicycling World* is the most welcome publication of any kind the United States mail brings me. The editorials are unique and your exposé of mail order fakes should do a great deal of good to the legitimate bicycle dealer."—W. D. Wilmot, Fall River, Mass.

No Juggling With Justice!

Because he failed to appear at the meet in Madison Square Garden on Monday evening two days after he returned from his tour abroad, "Major" Taylor was fined \$100 practically on the spot.

Because he confessed that he won a race at Manhattan Beach by resort to most original fraud, the N. C. A. is in a quandry as to what to do with Fred Hoyt. Probably as a "feeler" it was given out that in consideration of his confession, only "moderate punishment"—perhaps a month's suspension" will be meted out to Hoyt.

The difference in the promptitude of official decision in the two cases is interesting, to put it mildly.

There can be no two minds as to the depth of the two men's offenses. Hoyt befouled the sport; Taylor disappointed a race promoter and a public.

Hoyt had no shadow of excuse and merits no mercy. Taylor had every license to leniency. He was just two days off shipboard after maintaining America's honor abroad in glorious fashion. He had neither time to rest nor to regain condition, and to appear in such shape meant almost a certain defeat and loss of prestige. More than this, the meet at which Taylor was originally expected to appear on Monday was to have been held in Philadelphia. The Quaker promoter was "let off," however, and the meet given the Powers-Kennedy combination. If it is possible to be so liberal to the promoter there are certainly sufficient extenuating circumstances surrounding Taylor to merit a share of the same liberality.

We are for the honest white men every time, but we know the onerous burden this particular black man has to bear, and he has borne himself so honorably and well that he is entitled to fairer play than he has been accorded and seems likely to be accorded.

It is not fair to make him the promoter's shuttlecock. It is understood that he was practically required to bind himself to an agreement of the sort before he could obtain credentials to go abroad, and if the N. C. A. now suffers from its own requirement, it should find some other way out and not seek to make Taylor a scapegoat. To suspect him of having fallen under the "influence" of the "Brady party" is no more reasonable than to suspect other men of having Powers-Kennedy inclinations.

As for Hoyt, no "moderate punishment" is half sufficient. If Taylor's offense merits a fine of \$100, Hoyt deserves one of \$1,000 and a great deal more.

The N. C. A. has it in its hands to demonstrate that it stands for pure sport and that it deals out justice regardless of creed or color and without fear or favor. Its treatment of the Hoyt and the Taylor cases supplies the opportunity.

There is entirely too much trouble being experienced with motor pacing machines just now. Race after race is robbed of its interest by the failure of the motors to work properly, and audiences are sent home angry or only half satisfied. The worst of it is that the bulk of the trouble is avoidable, being due to carelessness on the part of the riders in charge.

COPPERS WITH CAMERAS

**Novel Plan to Circumvent Moto-cyclists—
Preachers Join the Outcry.**

London, June 26.—The police are organizing a big crusade not only against the drivers of motor cars, but also against motocyclists. So far there has been a certain difficulty in identifying the alleged furious riders, but last Saturday on one of the main highways out of London the police tried a complete system of persecution.

At points along the road officers were stationed with large books, in which they recorded the passing of any motocyclist and the time, while at one or two places these men were assisted by plain-clothes officers with snapshot cameras, who promptly photographed cyclists who were suspected of exceeding the wretched crawl of twelve miles an hour allowed by law. The result of this is that no doubt summonses will be issued broadcast.

It is a positive disgrace that the horsey element should be allowed to domineer over the motorists in this manner, for it is purely a matter of jealousy. The horsey man cannot go the pace, and he is annoyed at getting left. Therefore he tries to render it impossible for motorists to beat him. The scandal is that the public funds should be expended in such idle proceedings while there are so many useful directions in which the police might be employed.

The country parsons are also up in arms against the motocyclist, who, they say, tears through the peaceful lanes and upsets meditation. Recently one of these men was driving a horse—on a Sunday, too—which shied at a passing motorcycle, and in order to avoid a collision the motocyclist had to run into a ditch, with the result that his machine was severely damaged. The parson treated the matter as a good joke until the cyclist put it in the hands of an insurance company, when the godly man went to the police and after making inquiries thought that there was evidence that the cyclist had passed a policeman, thirty-five miles away from the spot where the accident happened, at a greater speed than twelve miles an hour, and as a result the cyclist was summoned by the police for furious riding and fined heavily, although there was no evidence as to the speed except the bare word of the constable.

If this kind of thing is allowed to continue it cannot fail to have a very bad effect upon the motorcycle industry, because, in addition to the expense of a machine, it is clear that every rider will have to put by a certain sum each year to pay the fines which he is sure to have inflicted or to square the police, which is probably the cheaper way in the end. As a matter of fact, the British police-

man seems to live for the most part on tips and bribes, and is rapidly becoming a pest. It is seldom if ever that he does any public good.

Having regard to the fact that some of the latest voiturettes of Continental manufacture are practically noiseless, so far as the motor is concerned, owing to the improvements which have been effected in the mufflers fitted, it seems a little bit extraordinary that motorcycles should still be so far from perfect in this respect. The silencers usually fitted are certainly by no means efficient, and it may be that the manufacturers are afraid to run the risk of muffling the exhaust too much with air-cooled motors, although if the silencers were made with half a dozen tubes, each provided with holes placed at opposite ends, there is little doubt that the noise would be reduced to a very great extent without decreasing the power of the motor to any perceptible degree. At the present time there are several English inventors at work upon the exhaust-box question, the general idea being to allow a rapid expansion without permitting undue noise. I saw one very good device, made by a Coventry firm, the other day, and it certainly caused the motor to run very quietly, and did not detract from the power. This was proved by applying the brake test with and without the muffler in place, and there was really no difference worth recording.

I think that we are getting very near to the silent petrol motor, and the next matter is the gearing. On many motorcycles the noise of the wheels is very great, but this should surely be overcome by employing some material for the larger wheel which will deaden the noise made. A fibre has been suggested, but, although this material stands well for chain wheels, I have my doubts about it lasting for mesh wheels, owing to the comparatively small size of the teeth necessary. Water has the worst effect upon wheels of this class, but as the gearing of a motorcycle is all inclosed and cannot possibly be effected by water the drawback does not apply. A friend of mine has used a small fibre wheel on the motor shaft of a De Dion tricycle, but has found it wear quickly. I do not think that this wear would occur in the case of the larger wheel upon the main axle, and at present a firm of fibre agents are experimenting with a couple of machines upon which wheels of this type are fitted.

The Sirdar Rubber Co., Ltd., have recently made a compressed rubber band for motor tires, which band is really compressed. The rubber is vulcanized upon a canvas strip which is endless and made to be a very tight fit upon the tread of the tire when the latter is fully inflated. This strip holds the rubber in absolute compression, so that all small cuts, if made, immediately close. I have seen a sample pair of these bands which have been used for a couple of thousand miles, and they look like new.

HOW GASOLENE IS MADE

The Interesting Processes Employed in Obtaining the Invaluable Liquid.

The manufacture of gasoline is an interesting, if little understood, process. It is thus described:

A big fire is built beneath a large cylinder tank holding 500 or 1,000 barrels of petroleum. Petroleum, or crude oil, while cold retains all its gases and vapors in a liquid state. When the crude oil begins to heat, the light gases rise and enter a large funnel-shaped hood at the top of the tank. From the small end of the funnel runs a coil of pipes surrounded by running water. The first vapor to arise is the highest test gasoline. The object of the running water within the pipes is to cool this vapor, thus changing it back to a liquid form, and it enters a second tank or mixer in liquid form.

This liquid, however, is full of impurities, and is especially impregnated with carbon, and to remove this carbon it is necessary to give it a bath. This is done in the mixer, the lower end of which is funnel shape. An air pipe is brought up through the bottom, and at the top are a number of small pipes filled with small holes. Through this pipe fresh air is forced with high pressure. A second pipe is brought into the tank from the top, through which is run sulphuric acid, which is much heavier than the liquid in the tank. The air forced through the pipe at the bottom of the tank keeps the sulphuric acid dancing back and forth until it has mixed in with every drop of the gasoline. Particles of carbon and other impurities are separated from the oil and absorbed by the acid. When the sulphuric acid has washed out all the impurities the air is shut off, and the acid sinks to the bottom of the tank and is drawn off.

The next move is to rinse the mixture and remove the sulphuric acid remains.

An alkali mixture is poured into the tank and the air pipes are again started to work. The alkali is washed back and forth until every part of the remaining sulphuric acid has been gathered up. Then the air pumps are stopped and the alkali sinks to the bottom of the tank. A stopcock is opened and the mixture of alkali and sulphuric acid is run to waste, and only pure gasoline remains within the tank.

From the bottom of the tank leads another pipe, with several stopcocks attached. An expert opens the stopcock and tests the gasoline as it comes out. The various grades—76 degrees, 74 degrees, 68 degrees, etc.—are all conducted to their respective tanks, where each is stored.

"Defects (in motorcycles) and How to Remedy Them." See "Motocycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York. ***

Do You Try to Sell Sundries or Do You Merely Keep Them For Sale?

There's a mighty difference between the two systems.

The dealer who tries to sell sundries—who displays, and advertises and “talks sundries,” rarely fails to sell them. While the buy-cycle season lasts but a few short months, sundries are always saleable. Cyclists are forever wanting something or other. They will want more of it and want it oftener if they are reminded of the fact.

The dealer who merely keeps sundries for sale usually keeps them. Goods of themselves cannot speak, and the merchant who keeps them in boxes on the shelf and sells them only as they are called for, is simply letting desirable profits slip into the purse of his more alert competitor.

It does not pay to hide lights under a bushel, nor to keep cycle sundries concealed on a back shelf.

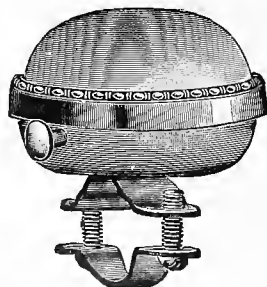
Don't do it!

Keep them so displayed and advertised that all men (and women) shall see and know them.

Our catalog No. 73 illustrates a full line of bells and other useful sundries that are adding to the income of many dealers and will add to yours if you make the most of the opportunity they afford.

We will be pleased to mail you a copy.

Why not send for one and “look it over?”



BEVIN BROS. MFG. CO.,
EAST HAMPTON, CONN.
(Business founded 1832.)

A Test of Expertness.

How expert does a bicycle rider have to be in order to lead a wheel with one hand and ride another “hands off” without risk? Does he menace public safety by so doing, or has he both machines quite under control?

A rider was recently arrested for indulging in such a performance. The claim was made in court that when the man was riding one wheel and leading another he was to all effects, so far as stability was concerned, on a four-wheeled vehicle, and was in no way menacing public safety. The judge said it was a knotty problem, but he released the prisoner.

COMFORT

with

SPEED

is the

CUSHION FRAME

Motto.

The CUSHION FRAME is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold **WITHOUT IN THE LEAST DETRACTING** from the **SPEED** or **POWER** of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy, “get there” riders who at first “scoffed” the idea of **COMFORT** being combined with “speed and power” in a bicycle.

HYGIENIC WHEEL CO.,

220 Broadway New York.

Owners of the Cushion Frame Patents.

THOUSANDS OF REPAIRMEN

and as many dealers who maintain repair shops who are not busy half the time

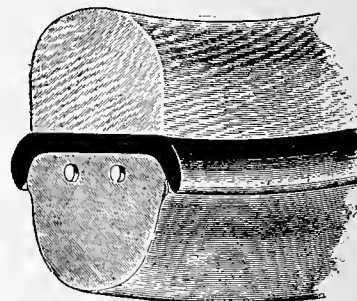
CAN BUILD UP A PAYING BUSINESS

by fitting rubber tires to carriages and other vehicles. It is a class of trade that is desirable and pays well.

THERE IS NO TOWN SO SMALL

but that there is business of the sort if it is “gone after” properly.

WHY NOT MAKE THE EFFORT?



We make the tires (from 3/4 in. up) and can supply the tools with which to apply them. Our prices are right and assure an all-the-year-round business.

Write us.

Our “Snap-on” Pedal Rubbers, Sponge Rubber Grips, Frame Guards and Pump Clips are still among the ready sellers and will repay pushing.

STRAUS RUBBER & TIRE CO.,

351-353 East 61st St.,

New York Ci

HOW TIRES ARE MADE

Processes and Appearances That Suggest Tripe, Dough, Putty, Sausages and Waffles, and Odors not Like Cologne.

Of the hundreds of thousands who use pneumatic tires, and of the tens of thousands who sell them to the hundreds of thousands, how many have seen a tire made or know how it is made? An infinitesimal proportion, it is safe to say.

But unless he has a great head for that sort of thing the average man might be shown through a tire factory and be little the wiser. One swift visit would be more apt to leave a smell in his nose and a confusion of similes in his brain. In this regard a tire factory is richer and far more poetic and impressive than a plant in which bicycles themselves are produced. Similes suggest themselves in rapid succession.

CRUDE RUBBER IN CHUNKS.

You see the crude rubber, and though they term the round or half-round chunks "Para biscuits," a suggestion of watermelons comes quickly to mind as more expressive of their sizes and shapes. You step into the immense drying room, in which the sheet rubber in various stages of "ripeness" is hung in separate bins, and if the size and appearance—and smell—of the sheets do not immediately suggest hides or middle-aged tripe—it looks for all the world like the latter and smells very like the former—then you have no mind for similes.

Some years ago Cleveland Moffett went through a tire factory and "wrote it up" for one of the illustrated magazines. Of course, he inhaled the odor of the drying room. Having inhaled it, he wrote of it as "a sweetish smell," a description that is both courageous and courteous, and proves convincingly that the nose of genius is not of the common mould. It conveys the impression that if Moffett were blind he would not unlikely mistake guano for German cologne.

SUGGESTS A GROCERY.

But to return to the similes: From the drying room go into the compounding room, and you may easily imagine yourself in a grocery. There are bins and barrels and boxes, a scale and a man with a scoop, dishing out sulphur and the other and many-hued chemicals that enter into the make-up of a tire. Stop in front of a mixing mill, where the sheet rubber and the chemicals are mixed and kneaded, and you will be pardoned for fancying that the operative is making either putty or dough—it looks as much like one as the other.

Here you see men covered with what seems flour and may imagine a flour mill or bake shop. But it isn't flour—merely soapstone. There you see an endless belt of flat rubber fed to a machine which quickly curls or turns up the two sides of the flat rubber into an inner tube—you see a sharp

knife fall automatically at the proper moment and cut the tubes to the exact length; and as the attendants lift them off and place them in long trays, if you exclaim, "Wonderful sausage machine!" none should blame you. The whole thing suggests sausage manufacture.

If, further along, you see men placing tires in the vulcanizing moulds and feel the great heat, and if at once a picture of huge waffle irons and waffle making comes to mind, it is not unmerited. The moulds are not unsuggestive of the waffle irons that mother used to use.

LOOKS LIKE A DRY GOODS STORE.

If by this time or before this time your head is full of a confusion of tires, tripe, hides, flour, putty, dough, sausages and waffles, and you should rub your temples and fancy yourself in a drygoods establishment or a cloth mill, you will have some ground for the idea. The great rolls and reels of white cloth that are here, there and everywhere—the sight of men measuring, cutting, winding and pasting the fabric that so largely enters into a tire, quite suggests the manufacture or sale of textiles. Every tire factory of any magnitude uses hundreds of thousands of yards of the material in the course of a year. There is as much fabric as rubber in evidence, if not more.

To the man familiar with tire manufacture these similes doubtless will be sidesplitting. To him "a tire is but a tire, and nothing more." But the similes are not overdrawn, and are but the accentuations of several visits to several tire factories. To the man who has never enjoyed the opportunity they will doubtless give a better understanding of the interior of such a plant, and of several of the processes of tire manufacture than would a mass of technical detailment.

WHEREIN PROCESSES DIFFER.

As the similes suggest, the making of the tire is an interesting process. Very many of the processes employed are perforce the same in all factories. The "compounds"—the chemicals used and the proportions of them—are essentials in which the several manufacturers go different ways. Each also has a particular way or particular machine for doing one thing or any other which cuts a figure in the matter of costs, but the tangible results are usually the same.

The methods and machines used in making the inner tube—the foundation of single-tube tires—usually differ, and one maker may form his tires on a mandrel or long, round pole, while his rival may form them on a "drum," which in shape is not unlike the drummer boy's instrument with the heads removed; the successive layers of fabric and rubber are built up around the drum.

The first step is in all cases the same. The crude rubber—the Para "biscuits" or "but-tens," or whatever they may be—are steamed and softened and thrown into a "washer," a crusher which, while water constantly plays on them, bursts the "biscuits" apart and draws them between its huge corrugated iron rollers, from which the rubber emerges

in the form of yellow sheets, pitted and looking like tripe. The sheets are then hung in bins in the drying room, where the temperature is about 90 degrees. As the moisture evaporates the sheets gradually turn the color of coal. This drying room, with its many bins of many shades of yellow and black, is a precious possession. At 84 cents per pound and over, its contents represent tens—often hundreds of thousands of dollars.

POPS LIKE CHAMPAGNE CORKS.

When the rubber is thoroughly dry it is coal black. From the drying room the sheets go to other powerful rolling mills or "mixers." When the rubber is well kneaded and is again plastic, the "compound" or chemicals are thrown in, and as two big iron rollers go round and round the rubber becomes the color of putty. A man attends each "mixer," and, while water plays on the rolls, with a sharp knife he cuts and turns in the rubber and thus keeps it from sticking to the rolls and from "slopping over" the machine. The mixing is accompanied by an intermittent popping, as of champagne corks or firecrackers; the popping is due to the bursting of air bubbles. When the rubber and "compound" are so thoroughly mixed as to be one, the rubber leaves the "mixer" in long, thick sheets, and is taken to the calender, a huge upright machine having several pairs of iron rollers; these press out the short thick sheets into long thin ones.

IMPORTANCE OF THE FABRIC.

Rubber of itself has small resisting qualities. To give it the strength necessary for use in tires the thin sheets of rubber and corresponding sheets of cloth are fed into the rolls of the calender, the rubber being squeezed into the meshes of the cloth. This is the "friction cloth" or "fabric" of which so much is heard, and of which successive layers form the tire itself.

This fabric, covered with powdered soapstone so that it will not stick to the operative's hands, is laid and smoothed out on a long, wide and, of course, scrupulously clean table, the proper lengths and widths are measured and marked, and the operative with a keen knife and a sure eye follows the lines marked and cuts the sheets into strips of the necessary sizes.

These strips are then rolled into cylinders, and the real beginning of the tire itself may be said to be in hand.

This article, it will be understood, deals only with the single-tube tire. In this, successive layers of "friction" are wound around a rubber tube made of a toughening compound, but into which no cloth is entered; this rubber tube is, so to speak, the core of the tire. "Pure" rubber, of which the unknowing speak, is merely a phrase of speech; pure rubber is unworkable, and, until mixed with the chemical "compounds," of small manufacturing value.

The making of the tube differs in the several factories. In some it is made by hand; in others as in the Hartford Rubber Works, it is made by machinery, and so

quickly and so simply that the eye is made to blink in spite of itself.

FORMING THE TUBE.

Fix a ring or large staple in a table, take a strip of paper of suitable size, pass it through the ring or the staple, and its edges will turn up and form the shape of a tube; if the edges or lips are covered with quick-acting glue they will secure themselves one to the other and a tube be formed. This is exactly the process employed in making the inner tube of a tire. In the Hartford plant it is done by an almost human machine: The rubber strip in an endless length feeds automatically into a machine having a ring and a "finger," which the better causes the edges of the rubber to turn up and the lips to meet. En route to the machine the lips are "solutioned," or covered with quick-act-

into a circle and the "splicing" begins. It is an intricate piece of work, requiring much dexterous cutting and pasting and rolling of fabric or "friction" into the "unbuilt-up" portion of the tire.

When this is completed the tire is ready for vulcanization, which transforms its plasticity into hard, wear-resisting qualities. Unvulcanized—that is, nubaked—rubber is closely related to putty.

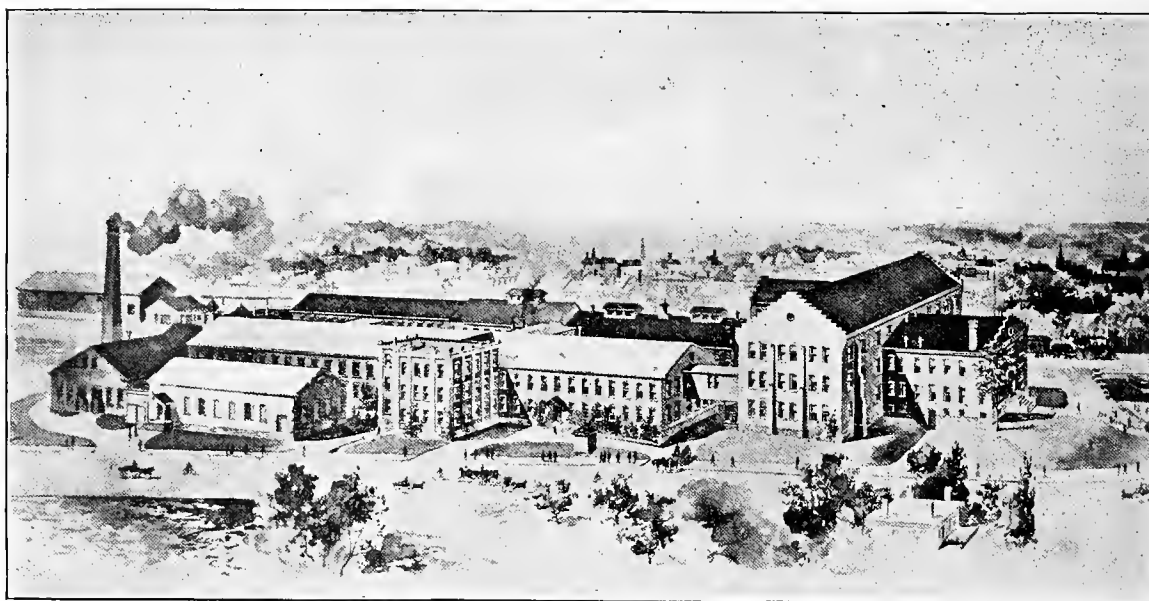
"COOKED" FOR THIRTY-EIGHT MINUTES.

The vulcanizing press may be likened to an open oven. There are four, five or six tiers of iron jaws or double shelves. Between each of them an iron mould, shaped, of course, to receive the tire, is pushed; hydraulic pressure forces the shelves together, steam heat is turned on and for 38 minutes the bicycle tire is "cooked" or vul-

is quite in keeping with its product. Unlike so many factories, it is not located in a cheap, tawdry or inaccessible neighborhood. The electric car that passes the door runs through a wholesome district; there is not a groggery or a cheap tenement on the route.

FACTORY WITH BROWN STONE FRONT.

The building itself is impressive. It is literally a "brownstone front." The main buildings are of red brick, but the office front is of brownstone, and is situated on a grassy terrace. Two short flights of brownstone steps lead to the vine-covered entrance, the vines and close-cropped, velvety lawn predisposing one favorably before he crosses the threshold. The buildings and surrounding grounds comprise between six and seven acres. The offices and workrooms alike are large, light and "airy." There are few if



HARTFORD RUBBER WORKS.

ing cement, and the moment they are turned up by the "finger" and come together in passing through the ring they stick fast and the tube is formed. It is formed and through the ring, and almost before one may say "Jack Robinson" a razor-edged knife falls automatically, and the tube, cut to the proper length, is lifted onto a tray by two attendants.

"BUILDING UP" THE TIRE.

A strip of fabric is cemented over the joint or seam to give it greater strength, and the tube is then forced onto a mandrel or long round pole; a "cot" or teat marks and makes the opening for the valve stem, and then around and around the mandrel layer upon layer of fabric or "friction" is rolled by expert workmen, who use small hand rollers to assist the operation. A few inches on either end is not thus "built up"; this is left for a later operation. When the half-formed tire is removed from the mandrel both ends of the tube are forced over a small cylinder (which remains inside the tire) as it is bent

canized at a constant temperature of 194 degrees. In the case of the Turner automobile tire the "cooking" requires 4 hours at 274. In the Hartford plant 48 of these vulcanizing presses are employed, each press receiving six tires.

When removed from the mould the tire, no longer soft and doughlike, but now hard and with a smooth satiny surface, is steaming hot, and is removed to the steam drying room, where all the moisture that remains is absorbed, and to all intents and purposes the tire is ready for shipment and use.

TESTING THE TIRES.

To make assurance sure, however, all factories test each and every tire separately before shipment. In the Hartford Rubber Works the tires are first inflated to withstand pressure; then, after remaining inflated for 24 hours, they are immersed in water, and no tire that gives even the faintest symptom of a leak is permitted to leave the premises.

The Hartford Rubber Works Co.'s factory

any dark corners, and the 700 hands appear to have a plenty of elbow room.

A LAKE OF STEAM.

It requires engines of 1,100 horsepower and 2,000 boiler power to run the mill; the excess of boiler power is necessary, and is represented by the steam used in the several drying or curing processes. A little lake nestling in the verdure that surrounds the factory adds to its picturesqueness. The lake, however, is an artificial creation, and is designed for use, not for ornament. The exhaust steam is discharged into the lake, condensed and cooled, and the water used again and again. It is but one of several strikingly original economies that mark the operation and management of the Hartford plant.

Nominally the mill employs 700 hands, as stated, and produces 4,500 bicycle tires daily. Under pressure of necessity it has, however, a capacity of 6,000 per diem.

REPRESENTS A FORTUNE.

In a tour of the factory the wealth that

is represented by the crude and curing rubber and by the great number and enormous size of the reels of fabric cannot but leave a marked impression on the visitor. With the cheapest grade of crude rubber selling at 84 cents and the better grades at \$1 and over, the tons of the material in stock represent a small fortune. The price is constantly fluctuating, and to buy to the best advantage requires constant watchfulness and quick decision; rarely a day passes that the long-distance telephone between Hartford and New York does not carry quotations and orders.

FABRIC BY THE 100,000 YARDS.

Some idea of the volume of Sea Island fabric used was given the *Bicycling World* man by Secretary Wilson of the Hartford Co. In answer to the question Mr. Wilson turned to his books and found that two orders, which he had placed had in themselves aggregated 400,000 yards—one for 250,000 yards, the other for 150,000. This represented purchases for bicycle tires alone, the material averaging 40 yards in width. In addition 65,000 yards of heavier fabric for use in automobile tires had been ordered, to say nothing of the tens of thousands of yards of cheaper stuff bought and used in the manufacture of tire tape, of which the Hartford Rubber Works sells thousands of tons annually, mainly for use in the insulation of electric wires.

Facts About Aluminum.

In 1855 aluminum as a metal made its first appearance, a bar of it being exhibited at the Paris Exhibition of that year. At that time its cost was probably about as great as that of gold, weight for weight. Since that time, however, its cost has been gradually decreasing as perfection in the method of its extraction has been gradually increasing.

In 1867 the manufacture of aluminum had grown out of the experimental stage into an established industry, and at the present time the world's output of aluminum may be put at quite 7,000 tons annually, and its cost at about thirty cents per pound.

To those who still think aluminum an expensive metal it may be said that a given object can be made cheaper in aluminum than in any other metal except zinc, lead or iron. Brass, copper and all other metals are now dearer than aluminum. Aluminum may be easily cast, rolled, drawn, stamped, turned or machined. Hence it is a most useful metal for machinery.

When aluminum is alloyed with such a metal as tungsten its specific gravity is, of course, increased; but its tensile strength is increased out of all proportion to its increased weight. Thus an alloy of the metals, while being very light, is as strong as gun metal and works as easily as brass, though its cost per pound is, of course, greatly increased owing to the cost of the alloy metal tungsten.

CRITICISES CYCLOMETERS

America Controls the Trade but Instruments Lose One Mile in Four, Says Froude.

"The potential accuracy of a cyclometer is really surprising, as was clearly evidenced in the solid tire days; and even with pneumatics, if the rider attends carefully to the inflation and has an accurate instrument, from my experience he need never be wrong in his cyclometer distance by more than some one-fifth per cent of the total, or, say, 30 yards in a run of 10 miles," writes R. E. Froude, superintendent of the British Admiralty Experiment Works. "This being so, it seems to me outrageous that nearly all the cyclometers sold and now in use should overrate the distance by about 4 per cent, or 1 mile in 25! Yet such is apparently the fact.



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

"I myself have always hitherto used some rather expensive instruments made by an English firm, who undertook to correct the gearing precisely to suit their customer's wheel; it was therefore the customer's own fault if his instrument was not perfectly accurate. But I am told that this firm is now extinct, and that no cyclometers at all are on the market except those of American make. Now, all these (with one partial exception, to be presently specified), so far as my present information goes, overlog, as I have said, by about 4 per cent, or 1 mile in 25. Or, we may express the same fact in another and perhaps more striking way by saying that they would be correct for a wheel more than one inch larger in diameter than that which they are sold to suit! Thus, e. g., if there were any cyclometers made for a 27-inch wheel they would be nearly correct for a 28-inch one; and again, for a 30-inch wheel a nominally 28-inch cyclometer is really less incorrect than a nominally 30-inch one! I call this state of things a burlesque; and I hardly know to whom it is

most discreditable, whether to the makers who sell or the customers who complacently accept and use a two-foot rule which is one inch short in the length, for that is what it comes to! A man with a good eye can guess a length better than that!

"The source of this error lies in the circumstance that the instruments are geared (quite with nicety, as it appears) on the assumption that the effective running diameter of the wheel is the nominal diameter, whereas it in reality falls short of that by more than one inch! Your readers may receive this statement with incredulous surprise; and indeed I hope they will, for it is my object to draw as much attention as possible to this matter. The more indignant your readers are at this paradoxical statement of mine, and the more zealously they set themselves to confute it by tests of their own, the better I shall be pleased. The test is easily made. Let them fix a conspicuous mark on their front wheel and ride a correct mile, counting the number of revolutions. (Be sure to get the tens right. Check them off with the fingers.) I shall be surprised if they get much fewer than 700 revolutions in the mile (equivalent to 28.8 inches diameter) with a 30-inch wheel, or 750 (equivalent to 26.9 inches) with a 28-inch. Some moderate differences there will, of course, be, due to differences of inflation, in make and diameter of tire, and in make of rim. Any well-ascertained data on this head I shall be extremely glad to obtain. Of course, I can only go by my own observations, which have been made with a 30-inch (smooth) Dunlop and a 28-inch Palmer, both 1 3/4-inch tires. The more definite facts we can obtain in this matter the better will be the chance of shaming the makers into taking a little trouble to correct their instruments. This full inch deficit in effective diameter arises in part from the flattening of the tire on the road, but in part also from the wheels being under the diameter to begin with.

"So much for the wheels; now for the instruments. Thinking it possible that in the five years or so during which these American instruments have been largely used in this country some of the makers might have discovered that they were (so to speak) a trifle of tenpence in the pound wrong in their accounting, I tested the other day, at Messrs. Gamage's depot, four of the instruments which they most highly recommended, including the Trenton, the New Era and the 1901 Veeder. I found all but the last named to be geared (as I had expected) to suit the nominal diameters simply. The Veeder, however (28-inch), instead of 721 revolutions per mile (the theoretical number for 28 inches diameter), was geared to 730 revolutions. It was thus partly corrected, and according to my observations with the 28-inch Palmer would overlog only about 2 3/4 per cent, instead of the usual 4 per cent. This is a step in the right direction, for which we may be thankful; but why not go the whole way at once? It should be as easy to gear the instrument to 750 revolutions as to 730."

Volts and Amperes.

The layman does not find it easy to understand the difference between the volt and the ampere. He will listen to the different explanations, repeating after his more or less learned instructor that one is quality and the other quantity, or that one represents pressure and the other amount; and he may think that he has it all settled.

But when he is alone and gets to ruminating over it he finds that it is not as clear as it might be even yet. There is no one at hand to consult, and the more he turns it over in his mind the more confused he becomes.

A singularly clear explanation of the difference between the two terms is given by a transatlantic writer.

"Assuming," he says, "that the electric current is a river, the volt is the speed of the stream, while the ampere is the quantity. Thus a narrow and small river might have a high speed of current, but a low quantity, while a broad and deep river might have a low speed and a great volume. So it is with electric currents."

On Care of Lamps.

When an oil lamp is troublesome and refuses to keep alight without apparent cause try the effect of fresh oil and a new wick. The wick in a lamp which has not been used for some time is apt to get sodden, and will cake, so that it cannot burn properly, whilst old oil will thicken and clog.

Attention should be paid to both the quality and the quantity of the wick, which should be of loose texture, and cut into lengths of from two to three inches, according to the depth of the reservoir. It should fit easily in the slot, as a tight fitting wick prevents the oil from raising freely.

The quality of the oil used is also a matter of considerable importance. All kerosene is not alike, and much of the trouble ascribed to lamps is really chargeable to a cheap grade of oil.

How and When to Oil.

The oil in the working part of any machine which has been run for a considerable time is apt to be clogged and dirty, and the careful cyclist makes it his first business to get rid of the dirty oil. Fill an ordinary oilcan with kerosene and squirt the contents into the oil holes, spinning the wheels until the dirty oil runs out. In this, care must be taken to prevent the oil running down the spokes onto the tires. The bracket bearings, pedals and head should also undergo similar treatment, after which the machine should be allowed to stand until all the oil has evaporated or run out. Before lubricating in the usual way, see that your lubricant is a good quality; and remember that little and often does the trick and keeps one's wheels running smoothly.

"Motocycles and How to Manage Them"; 126 pages, 41 illustrations; cloth bound. \$1. The Goodman Co., Box 649, New York. ***

Merkel's Motor Bicycle.

When the Merkel Mfg. Co. early this year succeeded to the plant of the Layton Park Mfg. Co., Milwaukee, Wis., they stated that motor bicycles would be made a feature of their productions.

A fire and other unforeseen difficulties caused delay, but the bicycle is now completed and ready for the market. The Merkel people say that they have postponed announcement of the fact until they were actually in position to not only invite orders, but to make deliveries. The announcement is made without brag or bluster, and in a tone that leaves a pleasant taste in the mouth.

"We think we have as good a machine as is now on the market," they say; "in some respects it is, perhaps, a trifle ahead of the others."

A good idea of the motor and the method of attachment will be gained from the illustration. According to standard practice, the cylinder is made of cast iron, with the ventilating ribs integral with the body. The

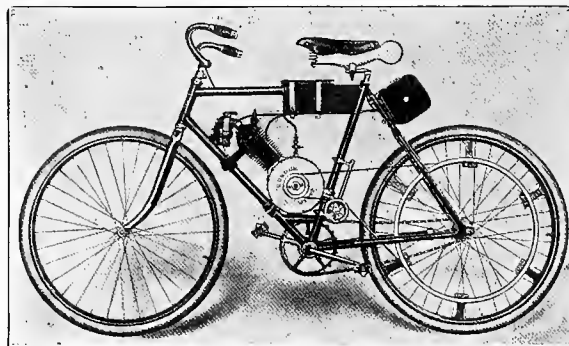
to operate a supplementary switch for the benefit of the absent-minded rider who leaves the handle bar switch turned on and polarizes his batteries.

The second feature is in the use of the frame of the bicycle for the muffling of the exhaust. A suitable connection conducts the waste gases to the lower bar, which in turn carries them to the seat mast, in which the muffler is located. The exhaust gases escape to the open air through a series of small holes in the back part of the seat mast. This muffler is very effective, and adds no extra part to the machine. Nor does it kick up the dust, as do some mufflers that are pointed downward.

The frame of the bicycle is made of heavier tubing throughout and specially reinforced at the joints. The complete machine weighs 78 pounds.

A number of machines have been equipped with the Berkey ball-bearing spring seat post, with a great deal of satisfaction to the rider, saving the rider from not a little vibration.

In addition to complete motor bicycles, the



crank case is of aluminum, with two lugs cast on, which clamp the motor between the lower bar and seat mast. The body of the crank case is only 2 7/8 inches wide, which allows the cranks of the Standard Fauber to pass with clearance. The position of the motor, with the weight of the fly wheels at the lowest point in the frame, insures a low centre of gravity, and adds to the equilibrium of the machine. Two very large fly wheels are used, diameter 7 inches, face 1 inch, weight 12 1/2 pounds. This insures great steadiness in the motion of the wheel, and no impulse can be felt.

The carburetion is effected by means of a neat little device which is described as "a cross between a mixing valve and a carburettor, embodying the good features of both." The batteries and coil are carried in a sheet-metal case mounted on the frame behind the saddle. The lubricating and gasoline tanks are clamped to the upper bar, with nickel-plated sheet-steel bands.

The machine incorporates two features on which the Merkel people lay special stress: The first is the single-lever control. One lever controls the ignition, by which the speed can be varied from about four to thirty miles per hour. The same lever also lifts the exhaust valve and relieves the compression when the machine is being pedalled, as in starting. The third duty of the lever is

Merkel Mfg. Co. sell the complete equipment to those who wish to set up their own machines. The first ten equipments were sold long before they were completed.

Motocycles and Baggage.

Whether motorcycles shall be carried in baggage cars as excess baggage is being discussed by the Western Passenger Association, now in session in Chicago. The line has been drawn rigidly against automobiles, and even motorcycles are favored by only a minority of a special committee appointed some time ago to investigate the matter. The majority of the committee contend that motorcycles are too heavy and cumbersome, and occupy too much space in the baggage cars. A settlement will probably be reached this week.

To Make Patches Stick.

When trouble is experienced in making a patch adhere to the outside of a tire cover when repairing a gash or cut in the outer cover, a Dunlop source advises that the patch be applied in the ordinary manner and, after allowing it to stay for some time to dry, to cover the patch and edges with a mixture made from equal parts of rubber solution and powdered sulphur. After allowing the fire to stand for eight hours, it will be found that the patch is covered with a hard film that will insure the patch remaining in place.

RACING

Ben Munroe defeated John Du Bois at Brockton, Mass., on July 4 without any trouble. The race was 20 miles, motor paced. Time, 32.24.

All of the Australasian championships this year have been won by American riders. Iver Lawson won the one-mile and "Bill" Martin the five and ten mile Blue Ribbon events.

Two motor bicycle races figured among the events run at Frederick, Md., on July 2. R. French won a 2-mile handicap from scratch in 4.37, while F. I. Clark captured the 2-mile open, time 4.15.

Caldwell beat Alexander at Hartford, Conn., on July 1, in a 20-mile motor-paced race. Both men had troubles with their pace, but Caldwell showed himself much the better man and won in 36.42 3-5.

Elkes made his reappearance at Revere Beach, Boston, on June 29. In a one-hour motor-paced race, with Moran as his opponent, he scored a victory, covering 36 miles 2 laps in that time. Moran was five laps to the bad.

In the so-called "world's championships" which began at Berlin on July 7, Robi, of Munich, won the 100-kilometre amateur championship, time 98 1-10 minutes. The Frenchman, Bonhours, started, but was early retired by a severe fall.

One of the most taking features of the Reading (Pa.) meet on July 4 was an exhibition ride by Thoma, paced by a motor bicycle. The latter was the first one seen on a track at Reading, and it was loudly applauded.

McFarland again distinguished himself at New Haven, Conn., on June 18. He beat out Kramer and a good field in the half-mile open, in the fast time of 1.01 2-5, and although unplaced in the mile handicap rode the distance in 1.55 3-5 from scratch.

Tom Linton will sail for home next week. The present visit of the famous Welshman has been almost an utter failure, far and away the least successful he has ever made to this country. Whether he could not get into shape or his best riding days are past is a mooted question.

Ray Duer, of Buffalo, made his professional debut in a motor paced race at Washington, D. C., July 5. The distance was twenty miles, the opponent Babcock, and Duer won in 36:10 by 1 1/4 laps. It was a close and highly appreciated race, devoid of motor troubles.

Earl McIntosh, a nineteen-year-old novice, won the fourteenth annual Pullman road

race, run at Chicago on July 4. His time was 40.39, and he started from the 7.30 mark. William Blum, scratch, won time prize, covering the course in 36.23 3-5. The best previous time was 34.36.

At Revere Beach, Boston, on July 4, the Englishman, Jenkins, again met defeat. This time his victor was the veteran Eddie McDuffee, the latter's first appearance this year. The event was a 5-mile heat race, best two in three, motor paced. McDuffee won in straight heats, time 8.46 4-5 and 8.38 2-5 respectively.

After a hard-fought contest Caldwell had Porter, of Detroit, beaten in a 20-mile motor-paced race at New Bedford, Mass., on July 4, but he stopped a lap too soon, and Porter, who was only 100 yards behind, swept by. Caldwell claimed that 20 miles and 1 lap was ridden, but the officials held otherwise. Time, 32.36 1-5.

On the evening of July 4 at Manhattan Beach the feature was a 50-mile motor-paced race, with four starters. They were Pierce, McEachern, Linton and Hoyt. The latter crossed the tape first in an interesting race, but was disqualified for being towed, as noted elsewhere, and Pierce was awarded the \$300 given to the winner. Hoyt's time was 1 hour, 30 minutes and 2 seconds, while Pierce's was 1.32.06 1-5.

Motor tandem versus locomotive is the newest form of the good old press-working dodge. Henshaw and Hedstrom are the daring riders who will essay the task, and the "fastest" locomotive on the Chatham & Lebanon Valley R. R. will be pitted against them. Straightaway, down hill and on a board track parallel with the rails, the attempt is slated to be made. No time is set for it, however.

More than 100 "simon pures" faced the starter on Independence Day, ready to take their lives in their hands on the improvised track at Franklin Field, Boston. These races are an institution in the city of beans, many afterward famous racing men having made their debut there. This time there were fewer spills than usual—only two, and they were not bad ones. Mettling won both the open races.

Kimble and Leander forsook the Eastern tracks temporarily last week in order to ride a match race at Indianapolis, Ind., on the afternoon and evening of July 4. Kimble won in straight heats, the first a quarter-mile, the second a half-mile, the latter by inches after a desperate struggle. Kimble also captured the mile open, with Leander and James Bowler in second and third places.

Michael stock went up a little at Revere Beach, Boston, on July 8. He defeated McEachern handily in a twenty-five-mile motor paced race, almost running the Canadian off his legs in the first few miles. After the latter had been lapped twice he had motor

troubles, but they did not materially affect the race. Michael finished three laps in the lead. Time, 41:51 1-5. The ten miles were ridden in 15:57. A ten-mile amateur, with twenty-six starters, was won by Mettling in 23:36 1-5.

Nelson was in great form at Springfield, Mass., on June 27, and Stinson was not. That explains the former's clean-cut victory in the 20-mile motor-paced race between the two men. Marred by no accidents, it was a case of fastest man, and at this game the Swede proved himself most proficient. Catching his pacing machine first, he got the lead and never lost it. At eight miles Stinson began to lose ground, and at the finish was four laps to the bad. Time, 32.37 4-5, track record.

At the Garden on Monday night the French motor that paced Linton showed a bright blue flame at regular intervals, plainly noticeable as it whizzed by. The Bicycling World man was interested sufficiently to examine it more closely, when it was discovered that the muffler had been removed, and the exhaust gas—which in this case was apparently only partly consumed—came through a short pipe to the air. No explanation of the removal could be obtained from the voluble Frenchmen in charge.

Harry Elkes pushed his Iver Johnson racer to the front at Manhattan Beach, New York, on July 4, without any trouble to speak of, notwithstanding he had for opponents McEachern, Pierce, Linton and Hoyt. The race was an hour race, motor paced, and the men finished in that order. Elkes covered 36 1/2 miles in the hour. "Major" Taylor, just off the steamer, rode an exhibition mile, and Gascoyne signallized the day by drubbing an American, Hadfeld, in a 5-mile pursuit race.

By repeating his feat of a few days before and winning the 5-mile professional handicap at Vailsburg, N. J., on July 4, this time from scratch, Fenn added a world's record to his score. Starting with Kramer, the Connecticut boy left his partner in the final sprint and got home in the lead by half a wheel. Time, 10.33 3-5. Collett, Freeman, Newhouse and Cooper were the other placed men. Hurley easily defeated Schlee and Billington in a three-cornered heat race. Kramer captured the half-mile open without any great trouble.

Motor troubles made a fiasco of what bid fair to be a close and exciting race between McFarland and Michael at Providence, R. I., on July 3. Michael was the sufferer, two motors in succession going wrong when not quite half the 20 miles had been ridden. The third motor carried him along all right, but the exertion of riding unpaced for a couple of laps told on him, and he could not regain his lost ground. McFarland again demonstrated his cleverness at pace following, and after getting a winning lead held it without much trouble. He finished five laps in the lead, time 33.27 3-5.

In marked contrast to the events of the preceding weeks, the races at Madison Square Garden, New York, July 8, were run off almost without a spill or other incident. The 15-mile motor-paced race was too one-sided to be interesting, McFarland clearly outclassing Linton and winning as he pleased. The latter had trouble with his pace after he was several laps behind, and McFarland voluntarily quit his pace to even up matters. Time, 29.33 4-5, Linton 4 laps behind. The sprint races were closely contested and intensely exciting. Kramer was easily the star, pushing the nickelled front fork of his Pierce to the fore in the heat and final of the 1/2-mile circuit championship. Hadfeld won the handicap.

Misfortune dogs the Boston Golden Wheel race. For five nights, two hours each, the contest went on, but with the sixth, Saturday, came rain, causing a postponement. As the second National Circuit race was scheduled for Tuesday, July 9, at Charles River Park, it was decided to "double up" on that date, running the finish of the Golden Wheel as well as the Circuit events. Again rain interfered, however, and now July 11 is the date selected for another trial. Moran looks the winner of the Golden Wheel race. He passed Champion on the second night and thereafter was never headed. Stinson also with his great recuperative powers, went by the Frenchman and made a great fight against Moran. The score at the end of the fifth night, July 5, was as follows: Moran, 341 miles, 1,577 yards; Stinson, 336 miles, 165 yards; Champion, 328 miles, 640 yards; Nelson, 317 miles, 206 yards.

One highly sensational race and two records marked the Vailsburg (N. J.) meet on July 7. In the 2-mile handicap Kramer, the Pierce champion, starting from scratch, rode a splendidly judged race, emerging from the ruck half a lap from home and crossing the tape in the wonderful time of 3.59 4-5, beating the old record (McFarland's), made in Washington in 1899, by no less than 83-5 seconds. Some 25 men started in this race, which was exceptionally well handicapped, and practically all were together when the bell rang. Hurley gladdened the hearts of those in the Yale camp by riding his blue wheel a half mile in the record time of 58 seconds, tying the world's professional time and beating the amateur by 2-5. But 2 1/2 miles of the 25-mile motor-paced race between Fenn and Ross had been run when the rain came down, and it was stopped by mutual agreement.

Catgut has helped many men to fame and fortune, but never has it been put to a stranger use than it was on July 4 at Manhattan Beach. A length of it, an innocent-looking violin string, one end attached to a belt around the broad chest of Mosher, the operator of the pacing machine, the other protruding from the back of his shirt, was the cause of all the trouble. Passed back quietly to Hoyt, who was following the ma-

chine, and by him caught in his teeth, it made an admirable towing line. From a third-rater it transformed the New Englander into a star of the first water, and enabled him to win a 50-mile race in fast time. Detected by a watchful official, disqualified and taxed with his crime, Hoyt denied and protested. On Monday last he thought better of it and confessed to Chairman Batchelder. He did not know there was anything in the rules that could reach him for such a little thing as that, he naively said.

Twenty-four races were ridden by "Major" Taylor while abroad, eighteen of them resulting in wins. One of the defeats was suffered in a handicap race and another in a tandem event. The complete record follows:

April 8, Berlin—Arend, first; Ellegard, second; Taylor, third. April 11, Berlin—Taylor, first; Arend, second; Ellegard, third. April 19, Verviers—Taylor, first; Grogna, second. April 22, Roubaix—Taylor, first; Grogna, second; Dangler, third. April 29, Anvers—Taylor, first; Grogna, second. May 3, Bordeaux—Taylor, first; Ferrari, second; Bixio, third. May 6, Nantes—Taylor, first; Gascoyne, second; Van den Born, third. May 6, Orleans—Taylor, first; Bixio, second; Ferrari, third. May 16, Paris—Jacquelin, first; Taylor, second. May 18, Turin—Ellegard, first; Ferrari, second; Taylor, third. May 27, Paris—Taylor, first; Jacquelin, second. June 1, Anvers—Taylor, first; Protin, second; Momo, third. June 3, Berlin—Taylor, first; Arend, second; Huber, third. June 5, Copenhagen—Ellegard, first; Taylor. June 6, Hanover—Taylor, first; Arend, second. June 8, Leipzig—Taylor, first; Arend and Huber, on tandem, second. June 10, Anvers—Taylor, first; Grogna, second; Protin, third; Momo, fourth. June 10, Anvers—Handicap, 1,600 millimeters. Grogna, 25 mil., first; Taylor, scratch, second. June 15, Toulouse—Taylor, first; Van den Born, second; Conelli, third. June 17, Agen—Taylor, first; Ellegard, second. June 20, Bordeaux—Grogna and Prevot, on tandem, first; Taylor, second. June 22, Lyons—Taylor, first; Lambrechts and Logarde, on tandem, second. June 22, Lyons—Handicap, Taylor, scratch, first; Martelat, 125 mil., second; Lambrechts, 70 mil., third. June 24, Geneva—Taylor, first; Gougoltz and Henneberg, on tandem, second.

Some Energy is Wasted.

It is asserted that when a spring or an elastic bar is deformed within the elastic limits, during the recoil which takes place the work put into it is given back, or, at any rate, largely so. A certain part of the work is certainly given back in the direction in which the deflection took place; but, on the other hand, some is lost in the work of molecular displacement, i. e., the work of the molecules of the material against one another.

"Motocycles and How to Manage Them"; 126 pages, 41 illustrations; cloth bound, \$1. The Goodman Co., Box 649, New York. ***

The Retail Record.

CHANGES.

Ivoryton, Conn.—Clarence Bushnell succeeds Arthur Cheney.

FIRE.

Ripon, Wis.—L. G. Bartlett, loss \$600, fully insured.

NEW STORES.

Canton, N. Y.—A. A. North.
West Union, O.—M. Tatman.
Harrisville, R. I.—John Quinn, Main street.
Utica, N. Y.—William Harrison, 41 Columbia street.

Groveland, N. Y.—George Van Housen & Son, Jameson Building.

Milwaukee, Wis.—W. L. Candee, 140 Mason street, closing out sale advertised.

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Northern New England is the summer pleasure and vacation ground for the world. No other section can boast of scores of lakes, a hundred beaches and a whole mountain range within the meagre boundaries of a hundred square miles, yet this is what New England has, and, though there are thousands of tourists annually at these resorts, there can be accommodated hundreds of thousands more.

Every nook and corner of New England is an outing resort and the Boston and Maine lines reach all of the leading ones. If you are interested in or intend to take a vacation this season, you want a Boston and Maine Excursion Book. It's free for the asking. Send a postal to General Passenger Dept. (21), B. & M. R.R., Boston. ***

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

Two Wheels Wanted.

We desire to obtain two copies of The Wheel of August 23, 1900. We will be pleased to give six months' subscription to the Bicycling World in return for each copy.

The Week's Patents.

677,373. Bicycle Handle. John M. Rauhoff, Chicago, Ill. Filed Dec. 20, 1897. Serial No. 662,528. (No model).

Claim.—1. The combination with housed resilient revoluble handlebar ends, of a taper surfaced body and members having correspondingly tapered bearing surfaces, mechanism to advance said tapering body, axially, to hold and release one of said handle-bars, substantially as specified.

677,378. Bicycle Tire. Columbus Stone, Manchester, Tenn., assignor of one-half to Charles E. Rodes, same place. Filed April 23, 1901. Serial No. 57,137. (No model).

Claim.—1. A vehicle tire comprising a tube having a helical spring disposed therein and in contact with the inner periphery thereof, and warp wires interwoven transversely with the convolutions of the helix to hold them from falling over.

677,400. Acetylene Gas-Generating Lamp. William P. Crary, New York, N. Y. Filed Dec. 18, 1899. Renewed Dec. 31, 1900. Serial No. 41,730. (No model).

Claim.—1. In an acetylene lamp, a water chamber, a carbide cup fitting thereto, a water supply tube extending downwardly from said chamber into said cup, and means for separably attaching the latter to said tube, all combined substantially as herein specified.

677,417. Clutch Mechanism. Howard F. Knight, Croydon, England. Filed Nov. 22, 1900. Serial No. 37,325. (No model).

Claim.—1. The improved clutch mechanism comprising an outer ring, an inner ring and an intermediate ring, a pawl or pawls arranged in connection with recesses in the said rings in such a manner that any relative movement of the said rings causes the movement of the said pawl or pawls, ratchet teeth on the inner ring with which the pawl or pawls is or are designed to engage and means for momentarily setting up a friction between the inner and the intermediate rings greater than that which exists between the intermediate and the outer ring, substantially as described.

677,428. Steering Device for Bicycles. George G. Spencer, Chicago, Ill., assignor to the Chicago Handle Bar Co. of Illinois. Filed April 28, 1900. Serial No. 14,701. (No model).

Claim.—In a steering device for bicycles, in combination, a stem having a forwardly projecting arm, an elongated plate at the end of such arm, the plane of the plate being transverse to the axis of the arm, a handle-bar of two sections separately pivoted to the plate, the hubs of the handle-bar sections having intermeshing gear teeth, a single binding plate lying against the outer faces of such hubs, the pivots of the handle-bar sections passing through the binding plate and being threaded into the first mentioned plate.

677,429. Hub. Lee Sturges, Elmhurst, Ill. Filed Sept. 30, 1899. Serial No. 732,149. (No model).

Claim.—1. A vehicle hub comprising a cylindric barrel of tubing, end caps screwed thereon having at opposite ends outwardly and inwardly extending integral flanges, and outwardly facing bearing cups clamped between the ends of the barrel and the inwardly extending flanges at the outer ends of the caps.

677,485. Frame for Motor Bicycles. Edward Y. White, San Antonio, Tex. Filed Jan. 12, 1901. Serial No. 43,050. (No model).

Claim.—1. In a bicycle frame, the upper and lower front bars connected to the steer-

ing post, and connected to a brace which extends from the upper to the lower bar, and then curves downward and backward to a fork which extends beside the rear wheel and carries the rear axle bearings, and a driving motor supported on said brace between its upright portion and the rear wheel.

677,491. Igniter for Gas Engines. Clyde Allen, Hazleton, Iowa. Filed Feb. 14, 1901. Serial No. 47,194. (No model).

Claim.—1. In a gasolene engine having an electrical sparking device, the combination of the contact piece, the insulated conductor, insulated lever and valve stem nut with sleeve, with the cylinder, piston, conductors and suitable means for imparting an electrical current to said conductors, substantially as shown and described.

677,494. Roller Bearing. George E. Bartholomew, Buffalo, N. Y., assignor of one-half to Albert A. Engle, same place. Filed Dec. 15, 1900. Serial No. 39,599. (No model).

Claim.—1. The combination with an axle having bearing rings mounted loosely thereon, of a casing surrounding the axle and provided at its ends, opposite said rings, with internal bearing rings, means for preventing endwise movement of said loose axle rings, a set of rollers interposed between the concentric bearing rings at each end of the casing and each provided with an annular flange which bears against the outer end of the adjacent ring of the casing, and cones mounted on the axle at opposite ends of the casing and bearing with their bevelled faces against the peripheral outer ends of said rollers, substantially as set forth.

677,592. Clutch. Henry W. Patrick, Birmingham, England. Filed June 9, 1900. Serial No. 19,790. (No model).

Claim.—1. A clutch comprising a ring having a recess, a disk having a long circumferential recess and working snugly within the ring, a sliding pawl of approximately one-half the length of the circumferential recess and adapted to move back and forth therein, and means adapted to bear against either end of the sliding pawl according to the position of the latter with relation thereto to throw the sliding pawl in or out of the recess in the ring.

677,652. Portable Electric Battery. Manes E. Fuld, Baltimore, Md. Filed May 17, 1900. Renewed May 21, 1901. Serial No. 61,318. (No model).

Claim.—1. In a portable electric battery the combination with a box having a hinged cover, of a false top pivoted in the said box, a battery cell, induction coil and connections mounted on the said false top, and a receptacle below the false top, substantially as described.

677,682. Coaster Brake for Bicycles. Ernest L. Morse, New Bedford, Mass. Filed May 3, 1901. Serial No. 58,651. (No model).

Claim.—A coaster brake for bicycles, comprising a stationary shaft supported in the frame of the bicycle; a sleeve, having one or more friction cones integral therewith adapted to have a longitudinal motion on said shaft; a hub having inclined surfaces projecting inwardly therefrom adapted to engage said friction cones; a sprocket fitting on said hub, having its inner diameter provided with inclines and balls, acting as a clutch to revolve the hub with the sprocket, when revolved in a forward direction; a cup flanged sleeve, adapted to take on to the cone sleeve and be adjusted thereon, the edge of said cup flange having inclines provided with balls adapted to bear against a washer interposed between said balls and the side of said sprockets; screws, seated in the flange of

said sleeve, having their outer ends adapted to have a longitudinal motion through apertures in a flanged nut adjustably secured to said shaft, and the usual ball cups, balls and cones, on which the hub revolves, substantially as shown and described.

677,705. Saddle or Seat Support. John A. Shaw-MacKenzie and Ernest A. Crowsley, London, England. Filed Nov. 8, 1898. Serial No. 695,826. (No model).

Claim.—1. A saddle or seat support consisting in the combination of a post having a longitudinal socket formed thereon, of a longitudinal tubular saddle pin, to which the saddle is directly attached by the usual means, of a spindle carrying said saddle pin and detachably secured in said socket, said saddle pin being capable of slight axial oscillatory movement on said spindle and of means for limiting said movement of the saddle pin, substantially as specified.

677,708. Automatic Tire Inflator. George B. Stacy, Boston, Mass., assignor to Alexander H. Spencer, New York, N. Y. Filed Nov. 13, 1900. Serial No. 36,355. (No model).

Claim.—1. An automatic tire inflator, comprising a pump having a spring pressed plunger with a hollow stem for removable attachment to the tire valve, a pump cylinder movable on said plunger, and a stirrup around the tire and connected with said pump cylinder, as set forth.

677,710. Air Pump for Pneumatic Tires. George B. Stacy, Boston, Mass., assignor to Alexander H. Spencer, New York, N. Y. Filed Nov. 13, 1900. Serial No. 36,357. (No model).

Claim.—1. A pump for pneumatic tires, comprising a sleeve attachment to the rim and tire of a wheel, a barrel having an outer and an inner head, of which the outer head contains a suction valve, and the inner head is adjustably attached to said sleeve, the inner head projecting into the barrel and having an internal passage for the air and ports leading from the passage through the inner end of the head into the barrel, a plunger operating in said barrel and adapted to be seated on the inner end of said inner head, to limit the movement of the plunger and its stem in an outward direction, the stem of the plunger extending through the sleeve into the tire, and a spring pressing the stem to hold the plunger normally to its seat in the said head, the said stem having its inner enlarged portion formed with a longitudinally extending groove opening into the tire, as set forth.

677,804. Bicycle Brake and Support. Joseph Schulte, jr., Monterey, Cal., assignor of one-half to Henry J. Henneker, same place. Filed Oct. 18, 1900. Serial No. 33,441. (No model).

Claim.—1. The combination with a bicycle frame of a pivoted turnable structure having a shoe adapted to contact with the ground, a footpiece turnable about the pivot point of the structure to depress the shoe, and having an independent rocking movement, a spring latch connected with and movable in unison with the rocking footpiece, a catch with which it engages after the shoe has been brought into contact with the ground, a releasing device and a returning spring whereby the parts are caused to resume their normal position.

677,810. Pneumatic Tire. Uzziel P. Smith, Chicago, Ill., assignor of one-half to Thomas Kane, same place. Filed Oct. 17, 1900. Serial No. 33,373. (No model).

Claim.—1. A bicycle tire composed of a

number of layers, one or more of said layers being soluble, substantially as described.

677,830. Bicycle Frame. Edward Y. White, San Antonio, Tex. Filed Nov. 15, 1900. Serial No. 36,641. (No model).

Claim.—1. In a bicycle frame, the combination of a front and rear frame hinged together above, the lower rear bars connected to the hub supports, a flexible tiepiece connecting said bars and extending forward and serving as a support for the base of a motor, a piston rod connected to said tiepiece and extending into the lower front bar of the frame, and a spring surrounding said piston rod within said frame bar, all substantially as described.

TRADE-MARKS.

36,688. Coaster Brakes. Henry C. England, Reading, Pa. Filed Jan. 7, 1901. Essential Feature—The word "Wyoma." Used since November, 1899.

The Week's Exports.

England and Holland accounted for the great bulk of cycle exports from New York last week. Their purchases far exceeded the combined total of the shipments to all of the other countries. Despite the fact, the shipment of \$2,675 worth to China was the striking feature of the week's business. The record in detail for the week closing July 2 follows:

Antwerp—2 cases bicycles, \$75; 22 cases bicycle material, \$1,300.

Amsterdam—130 cases bicycles, \$3,298.

British West Indies—23 cases bicycles and material, \$392.

Brazil—20 cases bicycle material, \$828.

Bremen—1 case bicycles, \$50.

British East Indies—16 cases bicycle material, \$490.

British Guiana—12 cases bicycles and material, \$491.

British Australia—2 cases bicycles and material, \$42.

China—76 cases bicycles and material, \$2,675.

Central America—3 cases bicycles and material, \$303.

Cuba—10 cases bicycles and parts, \$315.

Dutch Guiana—6 cases bicycles and material, \$317.

Genoa—7 cases bicycles, \$188; 13 cases bicycle material, \$400.

Gothenburg—1 case bicycle material, \$25.

Glasgow—4 cases bicycles, \$120.

Haugesund—1 case bicycles, \$15.

Hamburg—10 cases bicycles, \$307; 15 cases bicycle material, \$585.

Helsingfors—3 cases bicycles, \$150.

Japan—13 cases bicycles and parts, \$760.

Leghorn—4 cases bicycles, \$75.

Lausanne—54 cases bicycles and parts, \$1,505.

Liverpool—50 cases bicycles, \$1,936; 4 cases bicycle material, \$70.

London—747 cases bicycles, \$8,699; 28 cases bicycle material, \$1,648.

Lisbon—10 cases bicycles, \$350; 1 case bicycle material, \$22.

Mexico—1 case bicycles, \$38.

Milan—13 cases bicycle material, \$703.

Nuremberg—3 cases bicycle material, \$330.

Philippines—8 cases bicycles, \$820.

Rotterdam—188 cases bicycles, \$4,430; 14 cases bicycle material, \$565.

Southampton—5 cases bicycles, \$155; 62 cases bicycle material, \$3,970.

Uruguay—2 cases bicycle material, \$89.

WANTS AND FOR SALE.

15 cents per line of seven words, cash with order.

BUSINESS OPPORTUNITY. An established trade in Bicycles, Sundries, Photographic Goods, Fishing Tackle, etc.; also, best repair business, Tire Vulcanizing, etc., in the town. Located in best business section. Exceptional opportunity for store trade. In large town near New York. Will bear fullest investigation. Most satisfactory reasons given for selling. If you are looking for a genuine bargain, and mean business, it will pay you to address X. Y Z., care The Bicycling World.

HIGH GRADE

wheels must have the best equipments.

There is nothing that gives more value for the money than the use of the

MORSE TWIN ROLLER CHAIN



NOISELESS IN MUD, WATER OR DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless Rocker Joints. Insist on having the Morse Twin Roller. Fits regular sprockets.

Send for Catalogue and Trade Price to

Morse Chain Co., Trumansburg, N. Y.

HAND AND FOOT PUMPS,

Oilers, Repair Tools, Valves, Name-plates, etc.

Spelter Solder

Sheet Brass, Brass Wire and Rods.

SPECIALTIES to order
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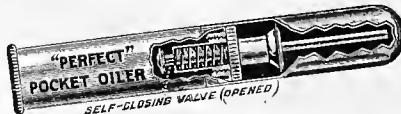
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Factories: Waterbury, Conn.

Depots: 210 Lake St., Chicago.

423 Broome St., New York

"PERFECT"



OILER.

For High Grade Bicycles. The best and neatest Oiler in the market **DOES NOT LEAK.** The "PERFECT" is the only Oiler that regulates the supply of oil to a drop. It is absolutely unequaled. Price, 25 cents each. We make cheaper oilers, also.

CUSHMAN & DENISON, Mfrs., 240-242 W. 23d St., NEW YORK.

INDIANA CHAIN.

EASIEST RUNNING.
CONSEQUENTLY BEST.



EVERY LINK IS RIGHT.



Send 26 cents for Fob. \$1.80 per dozen.

INDIANA CHAIN CO.,

INDIANAPOLIS, IND.

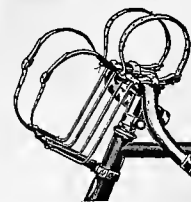
WOLFF-AMERICAN BICYCLES.

STEARNS BICYCLE AGENCY, - Syracuse, N. Y.

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All Kinds of Metal
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LAMSON-PETERSON LUGGAGE CARRIERS

The most serviceable made.

MEQUIER & JONES CO., Portland, Me



THERE'S REAL COMFORT IN THE REEVES

Ideal Spring Seat Post.

It relieves all jolts and jars, and converts any Bicycle, new or old, into a Cushion Frame. Fits any wheel. Sent prepaid to any address on receipt of \$1.75. Money back after three days' trial if you want it. Send size of present post. D. E. ORVIS & CO., 71 E. Genesee St. Buffalo, N. Y.

Reference, Buffalo Commercial Bank.

Dealers send for Circular and Wholesale Price List.

FAUBER PERFECTION HANGER.

Unequaled in any of the Points which make a PERFECT Hanger.

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NEW SYSTEM

of Gasolene Engine Ignition, "Autogas" Dry Battery, double porcelain insulated Ignition Plug, Secondary Coil, etc.

WILL SEND

1 DOZ.

of my Automobile Dry Battery anywhere, f. o. b. New York,

FOR \$3.

Write to-day for circulars, and mention Bicycling World.

WILLIAM ROCHE,

Inventor and Sole Manufacturer of New Standard Specialties.

42 VESKY STREET, NEW YORK CITY.

Gears and Their Shapes.

It is said by an authority on the subject that the largest proportion of cut gears are of the involute form. There are two reasons for this. One is that the cutters are simpler to make than those of cycloidal form; the other, which chiefly concerns bevel gears, being that there is less variation in the tooth profiles on the major and minor diameters.

Involute teeth also are cut in interchangeable sets, with eight cutters; cycloidal teeth require twenty-four cutters if wheels are to engage with entire accuracy—a very good reason, if there were no other, why cut teeth should be of the first-named form.

Another great advantage of the involute form is that the rack tooth with straight-line flanks, inclined at a definite angle, affords a basis for the developing of circular gears. This is taken advantage of, and forms the working basis of all gears made on the generating system, and is applicable to bevels as well as to spurs.

Generated teeth must be of involute form, because the mutual rolling of the blank and the cutting tool is similar to that which exists in the rolling of a pair of gears. A true cycloidal tooth cannot be generated. But a formed tooth may be of either shape.

"How to Drive a Motorcycle." See "Motorcycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York. ***

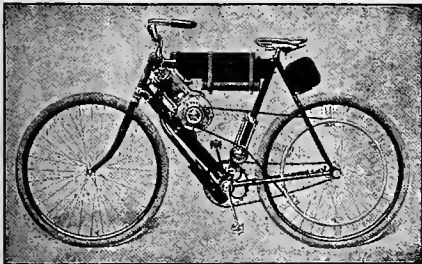
Still Want to Use Levers.

It is strange how long inventors hold on to some ideas, though surely experience should have ere this showed them the futility of their course. In the patent records of the world there still crop up from time to time weird designs in lever mechanism for cycle propulsion. The very look of most of these affairs is dead against them, for the bunches of intertangled levers and other attachments make them fearful to the cyclist's eye. And when the high efficiency of the modern chain or chainless driving gear is known, the wonder is why inventors of improvements in cycles should not learn cycling before they start inventing.

WE DON'T BUILD
RACING MACHINES,

BUT

A mile and one-quarter in 1 min. 40 sec. is pretty good going.



We also make the best tricycles and quads in the land, and are selling lots of them. It doesn't take all of your money to buy 'em.

On July 4th, at the Buffalo Athletic Field Cycle Races, a pursuit race was put on and the winner rode as above by removing his muffler and setting his spark high.

What is the use of *pushing* a bicycle? Let the motor do the work.

E. R. THOMAS MOTOR CO.,
106 Broadway, BUFFALO, N. Y.

K-K-O Tires

K-O-K-O to be on the go, get your tires from Kokomo. Made and sold by

KOKOMO RUBBER CO., Kokomo, Ind.

7 Arch St., Boston. 82 Broad St., New York City. 135 Lake St., Chicago

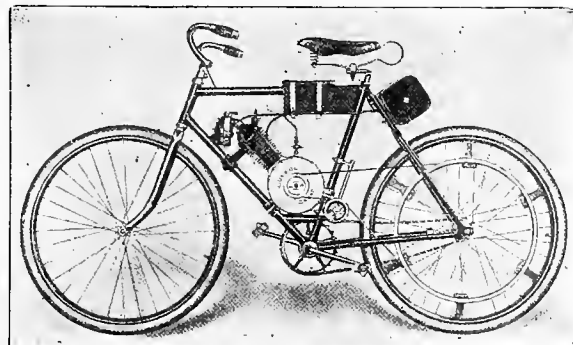
DEALERS
who look beyond the present and wish
to build for the future should handle

FISK TIRES!

Well made; make trade.

THE FISK RUBBER CO., Chicopee Falls, Mass.

BRANCHES: SPRINGFIELD, NEW YORK, 99 Chambers St., SYRACUSE, BUFFALO, DETROIT, CHICAGO, 54 State St., SAN FRANCISCO, The Phil B. Bekeart Co., 114 Second St. REPAIR DEPOTS: 135 Reade St., New York, N. Y. 168 Oliver St., Boston, Mass. 1015 Arch St., Philadelphia Pa.



If you have not a catalog of the

MERKEL MOTOR CYCLE

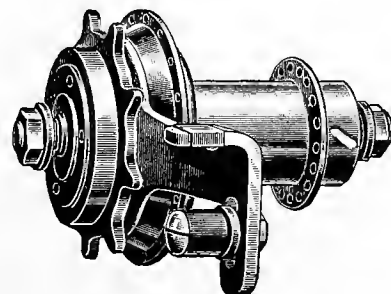
you should send for one. We want you to act as our agent in your city. Write for terms.

The MERKEL MOTOR CYCLE with its Single Lever Control is certainly a GREAT STUNT.

Motor Cycle Equipment.

MERKEL MFG. CO., DEPT. B., MILWAUKEE, WIS.

HERE'S THE UNIVERSAL COASTER BRAKE.



THERE IS NONE OTHER QUITE SO GOOD. IT HAS FEATURES ALL ITS OWN.

Write for Catalogue and Quotations.

Universal Coaster Brake Co., Office 313 Elliott Square, Buffalo, N. Y. Brandenburg Bros. & Wallace, Selling Agents, New York and Chicago.

The New Departure Coaster Brake.

YOU'RE IT !!!

WITH A NEW DEPARTURE COASTER ON A WHEEL, LIKE MERCURY, WITH HIS WING UPON HIS HEEL, THE AUTOMOBILE ISN'T IN IT, BUT YOU CAN COAST A MILE A MINUTE, AND YOU FAIRLY YELL FOR JOY, SO GOOD YOU FEEL

Speed as Pleasure as Protection.

Selling Agents,
John H. Graham & Co.
New York City, U.S.A.

Send for Catalog and Prices.

PATEE MOTOR CYCLES, \$200.



No other make of Motor Cycle can maintain a speed anywhere near equal to this wonderful machine. It is light, strong, serviceable and reliable. Will go every time, any time and all the time. No experiment, no plaything, fully guaranteed. Money refunded if not as described. Big trade discount. **WRITE US.**

PATEE BICYCLE CO., Indianapolis, Ind., U. S. A.

FAST TRAINS

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The Overland Limited

California in 3 days

The Colorado Special

One night to Denver

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Electric Lighted—Chicago, St. Paul and Minneapolis

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The Best Advertising for the Irish Trade is

THE IRISH CYCLIST

Specimen copy and advertising rates on application rates to

R. J. MECKREDY & SON, Ltd., Proprietors,
49 Middle Abbey St., DUBLIN.

A American wheelmen who desire to keep themselves posted upon matters concerning the cycle in Europe, its trade, mechanics, and sport, should subscribe to

THE CYCLIST

AND BICYCLING AND TRICYCLING TRADES REVIEW.

The only recognized authority of English trade and manufacture. Sent post free to any part of America for one year, \$3.25. American manufacturers having novelties in machines or sundries to introduce should advertise in

THE CYCLIST.

Terms on application to

ILIFFE SONS & STURMEY, Ltd.,
19 Hertford Street, Coventry, England.

Members of the American Trade visiting England are invited to go to THE CYCLIST Office at Coventry or at 381, E. 4th Street, 1st Floor, London, E. 4.

NEVERLEAK

STOPS LARGE PUNCTURES.

This is the only fluid that can be legally used in pneumatic tires. Suits now pending.

BUFFALO SPECIALTY MFG. CO.,

Buffalo, N. Y.

BOSTON & ALBANY R. R.

N. V. C. & H. R. R. CO., Lessee.

Rates and Conditions for Excursion Tickets to

BUFFALO OR NIAGARA FALLS
AND RETURN.

Boston & Albany R. R. to Albany. New York Central & Hudson River R. R. to Buffalo or Niagara Falls.
(Returning same way.)

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PAN-AMERICAN EXPOSITION

MAY 1st to NOV. 1st, 1901.

FROM.	CLASS A.	CLASS B.	CLASS C.
BOSTON	\$19.00	\$16.00	\$12.00
SOUTH FRAMINGHAM	18.70	15.50	11.60
WORCESTER	18.00	14.60	11.00
PALMER	16.25	13.30	10.00
SPRINGFIELD	15.65	12.75	9.50
WARE	16.75	13.70	10.40
WINCHENDON	18.00	14.50	10.50
TEMPLETON	18.00	14.40	10.40
ATHOL	16.90	13.70	10.45
WESTFIELD	15.30	12.50	9.20
PITTSFIELD	13.70	11.00	7.75
NORTH ADAMS	14.00	11.25	8.00
CHATHAM	13.10	10.10	6.85

CONDITIONS.

Class A. On sale daily, and good for passage in either direction May 1st to Oct. 28th, final limit Nov. 2d, and in Pullman cars on payment of additional charges for such accommodations.

Class B. On sale daily, and good for fifteen (15) days, including date of sale, and for continuous passage only in each direction; and are non-transferable, requiring signature of purchaser, and must be stamped by agent at Buffalo or Niagara Falls before same will be good for return passage. Good in Pullman cars on payment of additional charges for such accommodations.

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A. S. HANSON, General Passenger Agent.

GOOD WORK GUARANTEED.

D. PATTINSON,

rear 48 Stanhope St., Boston.

(Opposite former location.)

EXPERT REPAIR WORK

OF ALL KINDS ON

BICYCLES AND AUTOMOBILES.

(Official L. A. W. Repair Shop.)

PATENTS GUARANTEED



Our fee returned if we fail. Particulars and our book "How to Secure a Patent" sent free. Patents secured through us are advertised for sale at our expense. Send sketch and description of your invention and we will tell you free whether or not it is patentable.

CLANDLEE & CHANDLER
Registered Attorneys,
906 F Street, Northwest,
WASHINGTON, D. C.

Many have made fortunes from simple inventions.

The Thorndike

Boylston St. and Park Square,

On the border of the most famous Public Garden in America. **BOSTON.**

G. A. DAMON. J. L. DAMON. J. L. DAMON, Jr.



Via Rockford, Freeport, Dubuque, Independence, Waterloo, Webster City, Fort Dodge, Rockwell City, Denison and Council Bluffs.

DOUBLE DAILY SERVICE
TO OMAHA

Buffet-library-smoking cars, sleeping cars, free reclining chair cars, dining cars. Tickets of agents of I. C. R. R. and connecting lines.

A. H. HANSON, G. P. A., Chicago.

BOSTON & MAINE R. R.

LOWEST RATES

FAST TRAIN SERVICE

BETWEEN

Boston and Chicago,

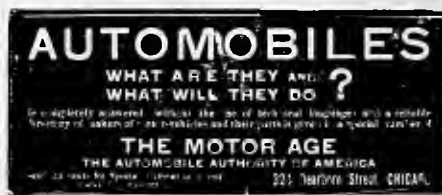
St. Louis, St. Paul,
Minneapolis

and all points West, Northwest, Southwest.

Pullman Parlor or Sleeping Cars on all Through trains.

For tickets and information apply at any principal ticket office of the company.

D. J. FLANDERS, Gen'l Pass. & Ticket Agt.
BOSTON.



The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., July 18, 1901.

No. 16

ST. JOHN SUCCEEDS WILSON

Several Other Changes in Hartford Rubber Works—Wilson's New Berth.

At a meeting of the directors of the Hartford Rubber Works Co. held on Tuesday of this week, the resignation of J. C. Wilson as secretary and treasurer was tendered and reluctantly accepted, and W. H. St. John was elected to fill the vacancy. At the same session F. H. Turner was made vice-president.

Because of his long and intimate connection with the Hartford Co. the resignation of Mr. Wilson will undoubtedly cause considerable surprise in the trade; he succeeded to the post of secretary-treasurer in 1899, and leaves Hartford with the best wishes of his former associates to accept the position of general manager of the Seamless Rubber Co., of New Haven, Conn., one of the largest manufacturers of mechanical rubber goods in the country. His ability and urbanity assure Wilson's success in his new venture.

W. H. St. John, the new secretary of the Hartford Co., is one of the substantial young business men of Hartford, and for the past ten years has been secretary and general manager of the Spencer Automatic Machine Screw Co. He brings to the company a ripe business experience and a thorough knowledge of existing conditions.

The office of vice-president has always been vacant, and in choosing Mr. Turner for the position the directors gave recognition to a man who has long been connected with the company in the capacity of superintendent, and who has done substantial service in building up the interests of the organization. Mr. Turner is the inventor of the well-known Turner automobile tire.

At the stockholders' meeting the following directors were elected: A. L. Kelley, of Providence (Mechanical Fabric Co.); John Redfield, of Hartford (president National Exchange Bank); William Towner, of New York; Lewis D. Parker and F. H. Turner, of Hartford. The directors retired as the result of this election were Colonel George Pope and George H. Day.

The officers of the Hartford Rubber Works

Co. now are Lewis D. Parker, president; F. H. Turner, vice-president, and W. H. St. John, secretary and treasurer.

Sold Wheel for Storage.

Charles R. Lloyd, a bicycle dealer in Main street, near Sheldon, Hartford, Conn., was arrested last week, charged with embezzlement by bailee. John J. Lawlery left a bicycle with Lloyd to be repaired, and after the bicycle had remained in Lloyd's possession for some time over thirty days he sold it, believing, as it is claimed, he had the right to do so. He will be tried in the Hartford police court.

Prominent Torringtonian Dead.

Charles Alvord, one of the most influential citizens of Torrington, Conn., died at his residence on July 13. He was 74 years old, and had been in poor health for some time. Mr. Alvord was a director in the Eagle Bicycle Mfg. Co., and until 1898, when he retired from active business, he was treasurer and manager of the Excelsior Needle Co.

Two More to be Closed?

According to reports that are circulating, two and perhaps three Trust factories are booked for discontinuance. It will carry with it the manufacture of certain bicycles in other factories. One of the rumored moves in this direction is so astounding as to suggest a leap from the semi-sublime to the wholly ridiculous.

Assets Largest, but Fails.

Henry H. Brantigan, a bicycle dealer at Bridgeport, Conn., filed a voluntary petition in bankruptcy last week. His liabilities are \$5,116.03 and his assets \$5,606.65. Of the latter \$2,786.65 is in debts due on open account, \$1,500 in stock in trade and \$1,250 in machinery and tools.

Sale was Declared Off.

The old plant of the Trinity Cycle Works, at Worcester, Mass., was put up at auction last week, but owing to a question arising concerning ownership of a driveway adjacent to the property the sale was declared off pending the adjustment of the difficulty.

DUNLOP GETS INJUNCTION

But Pennsylvania People Entered no Opposition—Only Inner Tubes Involved.

The United States Circuit Court at Pittsburgh has granted the injunction prayed for by the American Dunlop Tire Co. restraining the Pennsylvania Rubber Co., of Erie, from further use of the name "Dunlop" in marketing its products. The Pennsylvania people made no fight against the injunction, as they say it was never their intention to interfere in any way with the Dunlop business. They had been marketing not a tire, but merely an inner tube, which they designated as of the "Dunlop style" for use in that tire. They will continue to make the tube, as is their right, but will, of course, cease to employ the former designation.

Renold is Pessimistic.

Of interest is the brief statement contained in Wheeling to the effect that Hans Renold, the well-known chain maker, now in this country, is writing home letters filled with gloomy forebodings relative to England's industrial future.

Mr. Renold, who is on a business trip, has, this informant says, "visited a number of engineering works, as a result of which he expresses some pessimistic views as to the future of England's industrial greatness. Let us hope the picture is not so bad as Mr. Renold would paint it. So far as cycle chains go, anyway, England has nothing to fear from America."

It is quite possible, in spite of Wheeling's jaunty remark, that Mr. Renold learned a thing or two about chain making.

He Improved Bicycle Machinery.

William W. Tucker, the inventor of a number of labor-saving inventions applied to the machinery used in the manufacture of bicycles, died at his home in Hartford, Conn., last week, after a long illness. For a long time he was connected with the Pratt & Whitney Co., and while with them invented and patented improvements in automatic screw machines.

MILLIONS IN IT

Motors Made of Springs and Run Like Clocks—Details are Lacking.

"What I am waiting for," said the man who prides himself on his originality, "is the motor actuated by springs—one that will be wound up like a clock and made to go for a certain length of time by the power contained in the coiled springs.

"You laugh, of course"—this brought out by a very broad smile appearing on the face of the Bicycling World man—"but we'll both live to see the day when such a motor will be in successful operation. It's not so absurd, either. There are plenty of other things worked by springs, and they furnish more power than would be required to run a bicycle, or even a light automobile. So why should not the idea be applied to these vehicles?

"Just think of the simplicity of the thing!" he continued, apparently infected with his own enthusiasm.

"No loading the bicycle down with enough paraphernalia to run a locomotive, no multitude of things to do to operate it, no mass of parts to continually get out of order. No heavy, dirty, noisy, vile-smelling and heat-generating motor to make it unpleasant for the rider. Why, I'll venture to say that there is not one person out of a thousand but what would choose such a motor as I speak of in preference to the present type.

"All that would have to be done would be to rig up a box with a pretty powerful spring inside of it. The latter could be connected to the cranks or the rear wheel in some manner—I'll leave it to you people who are in the business to work out the details. Then all you would have to do would be to wind up the thing and let her go.

"Yes, I'll admit that the spring would have to be pretty strong. But if you had a crank with a big leverage there ought not to be any particular trouble to wind it up. Then when you wanted to go you would only have to get on the machine and let out a link or two of the coil, and away you would sail.

"Talk about ease in climbing hills or progress without exertion these hot days! Why, you could go anywhere, at any time and at any speed. There would be no bothering about your supply of gasoline, no pedalling and opening the compression tap till you got started, or any of that flummery.

"Suppose the spring broke? Well, but it would not break. Why should it? Other springs don't break if they are properly made and tempered, and why should this one?

"There might be some trouble, of course, about contriving a way of regulating the power. But that and the difficulty of connecting the spring with the driving apparatus could be overcome, I'm sure. It would be this way: If you turned on the power only a little the machine would make, say,

ten or twelve miles an hour, while if you turned it all on, whiz! you would go, and nothing could catch you.

"Say, don't you think we could get up a company to exploit this idea? I would patent it and give you a share in the invention if you would interest people in the bicycle business. What do you think of it?"

The Bicycling World man was obliged to confess that he did not place a very high valuation on his share in the enterprise. He even went so far as to say that he was very much afraid that the right people could not be interested in the venture.

Escaped Through Faulty Indictment.

Because a faulty indictment had been drawn, two tax collectors who attempted to blackmail the Mead Cycle Co., Chicago, have escaped for the present.

This contretemps resulted in the discharge last week by Judge Tuley of C. W. Moulton and James M. Lovelette, former deputy collectors of the South Town, who had been held by a grand jury on charges of charging illegal fees in the collection of personal property taxes from James L. Mead, of the Mead Cycle Co.

When the case was called the defence entered a motion to quash the indictment as being insufficient and not charging a crime. The allegations against the men were that they had demanded of Mr. Mead a fee of \$30 to which they were not entitled. The defence claimed that the indictment failed to show that at the time this demand was made the collectors were armed with distress warrants and were entitled to certain fees. The court, after listening to an hour's argument, ruled that the indictment was insufficient and dismissed the case.

It is stated that another indictment will be drawn.

The Mead Co. is the mail-order concern that, while purchasing thousands of cheap bicycles from the Trust, poses as a bicycle manufacturer, and is the one that advertises for "rider agents," who are promised bicycles in return for "distributing 1,000 catalogues"—an offer designed to catch "suckers," as the gullible people who answer such ads. are termed by the mail-order "profesh."

Henshaw Sues Street Car Company.

Alleging that he has \$5,000 worth of pacing engagements this season, Charles S. Henshaw, the well-known motor tandem expert, has brought suit against a New Haven (Conn.) street railway company for damages sustained while riding on one of its cars last Sunday.

He was on one of the two cars which collided on the road to Savin Rock, and as a result his knees are badly injured, and the doctor says he must not attempt to ride a wheel for a long time.

Henshaw was on the second car, and was thrown violently forward, his knees coming in contact with the seat in front of him. He was so badly injured that it is with difficulty that he can walk.

MADE IN MOULDS

New Process Which Casts Frames and Forks in One Operation.

The matter of joints or lugs for frames and forks is one that is not attracting much attention just now. Since the appearance and very general adoption of flush joints there has been nothing particularly new or striking introduced. Makers have gone on using the type of joint that suited them best, with no thought of change.

In the past, however, joints were of more importance. Controversies were waged over them, the most notable instance being the flush versus outside joint battle of half a dozen years ago. In addition, the kind of metal used, as well as the process of manufacture, has occupied attention. Forgings, stampings and casting made of steel—all have been and are still used. Aluminum and various other metals have also been tried, with more or less—usually less—success.

From Syracuse, N. Y., comes the account of a new joint which, in combination with a novel method of manufacturing the frame and fork, is worthy of mention, at least. It is rather late in the day to persuade the cycle trade to adopt anything that is as radical a departure as this, and this reluctance to take up new things will undoubtedly interpose an obstacle to its success not easy to remove. Nevertheless, the method has some merits, and that may obtain for it a hearing.

The joint referred to is made from a new metal, termed Clark metal, and named after the inventor. It is an alloy, having copper for its base, and is cast in the usual manner in the shape desired. Moulds are made for the fork crown, crank hanger, head, seat-post and other joints, these moulds being in two equal-sized pieces.

Now comes the really novel and interesting part of the process. Instead of the two halves of the joints being cast in the regulation manner, the moulds are taken apart and the lengths of tubing and forksides firmly clamped in them—in much the same manner as stamped or forged lugs have fitted and pinned to them the tubes made to go into them. The entire frame or fork is fitted at once, the casting of the joints taking place almost simultaneously.

The metal now being ready, having been melted in a crucible, it is poured into the moulds through openings provided for that purpose. As the metal is at a white heat, it heats or anneals the tubing, but does not cleave to the moulds, as they are cold, and, being of larger size, take a long time to heat. The process takes about three minutes, the metal cooling almost instantly. The waste metal, or "gate," as they call it, is cut off with hand saws, and the joints finished off.

"How to Drive a Motorcycle." See "Motorcycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York. ***

HOSE AND TIRES

**Resemblance Between the Two Articles—
Even Price is Similar.**

In the window of a Barclay street (New York) store, not far from the ferries, hangs a boldly lettered sign telling passers-by that ten feet of first quality garden hose can be purchased for \$2.50, or 25 cents per foot.

The sign, although the price was nothing out of the ordinary, evoked long-forgotten memories in the *Bicycling World* man's mind. Common, everyday hose pipe 25 cents per foot! That appeared to be a good price for it, especially as the quality was not of the superfine order. It was probably almost as much as it brought a decade ago, notwithstanding the fact that the rubber trade had undergone its fair share of concentration and trust formation.

How did this price compare with the present figures on bicycle tires? was the next thought, the affinity between the two widely different, yet in some respects affiliated, articles instantly coming in mind.

A 28-inch tire is a trifle over seven feet in circumference. If it were cut in one place it would make a piece of hose of about that length. At 25 cents a foot it would figure out at a trifle over \$1.75 per tire, or \$3.50 per pair. There are tires, and fair ones, sold at retail at this price. The "cheap and nasty" sort, of course, go much below this, and many thousands of them are sold to riders who are willing to take their chances with them.

The comparison is an instructive one, regard being had merely to the difference in the construction and the purposes to which the two articles are put. The garden hose must be stoutly made, capable of successfully withstanding a considerable water pressure per square inch. Its life rarely exceeds half a dozen years, and, unless it is of very good quality it will begin to leak and give trouble at the end of three. During nearly one-half the year it is not in use.

Bicycle tires have to be air tight—a matter much more difficult of accomplishment than to make a hose water tight—to withstand an air pressure very much greater than does the hose a water pressure, and to come in contact with all sorts of roads for thousands of miles. It is the latter—this road friction—that shortens its life more than everything else combined. A tire kept pumped up hard all the time, but not ridden, would steadily deteriorate, of course; but this lessening of its efficiency would be extremely slow and due entirely to the "deadening" or loss of life of the rubber.

When the early history of pneumatic tires is recalled the change is positively startling.

When tires cost \$25 a pair it was natural to expect something more than ordinarily good. The difficulty of manufacturing a tire that would be air tight, of getting fabric

sufficiently strong to resist the air pressure from within and the road shocks from without, of generously rubbering the tread to resist wear and puncture, of providing a valve that could be relied on—all these desiderata, or rather necessities, were dwelt upon feelingly as explaining their great cost.

When the single-tube tire was brought out—slightly dubbed the "hosepipe"—it was termed a cheap tire. Who couldn't make a length of garden hose, join it and stick a valve in it, call it a tire and sell it at a reduction? its detractors asked.

It was soon discovered by advocates and detractors of the new tire that it was something more than a length of hose that was required if a satisfactory tire was to be produced. But it well illustrates the constant hammering of tire prices that has been going on for ten years to reflect that tires have almost reached the price of the despised garden hose.

Rubber and Gutta Percha.

The quality of elasticity and of returning after stretching to its original form distinguishes rubber from gutta-percha, the difference between which usually puzzles the average man. Both are impervious to water and are bad conductors of electricity. Mixed with carbon and vulcanized by the addition of sulphur, gutta-percha is largely used in the making of telegraph cables as an insulator in which the cables are embedded. Gutta-percha is the product of one plant, while rubber is derived from over sixty plants. Three-fourths of the gutta-percha commercial product comes from Sumatra and Borneo, although, like tin, it is shipped from Singapore and not from Batavia.

The gutta-percha tree is grown with difficulty, and the native cuts it down to get the product, although gutta-percha is now extracted from the leaves of the tree as well as from incisions in the trunk. The total production in the world is about one-twentieth that of rubber.

Hauled Plunder in a Wagon.

Audacity was the most striking characteristic of the thieves who looted the repair shop of J. F. Smith, of Buffalo, last week. The robbery occurred sometime between Saturday night and Monday morning. Everything portable was taken—bicycles and tires left for repair, tools, coaster-brakes, and everything that was not too heavy to be moved by two or three men. A window in the rear of the store was found broken in, and the thieves evidently worked through it, using a small street in the rear as a base. It is even thought that they had a wagon there to haul their booty away, although the discovery of a lot of tires, etc., hidden under a board sidewalk where the wagon is supposed to have been throws some doubt on this. One man has been arrested, and other arrests are expected to be made.

"Motocycles and How to Manage Them"; 126 pages, 41 illustrations; cloth bound. \$1. The Goodman Co., Box 649, New York. ***

SUN AND RAIN

**England Favored With One While we got
the Other—Effect on Trade.**

Things frequently go by contraries. A proof of this is that the present British cycle season has been a good one, while the one drawing to a close in this country has been just the reverse.

In both cases the weather has been the determining cause. In the land of much rain and infrequent sunshine the weather conditions have been but little short of ideal—that is, by comparison with other seasons. Here, however, where riders feel that they have a right to grumble if they do not have at least five clear days—one of them Sunday—a week, the very heart of the selling season was cut out by a series of continuous and exceedingly unusual rains.

That Great Britain, where the cycle trade is considered to be infinitely worse off than that in this country, should have experienced a good year is indeed surprising. Such appears to have been the case, however, and it is even said that more bicycles will be sold this year than in any season since 1896—the "boom" year of unlovely memory.

It is the cheaper class of machines, however, with a few notable exceptions, that have been most in demand. On this account the showing made by the various manufacturing concerns is much less pleasing than it would otherwise be. Only a few of them have thoroughly learned how to build machines cheaply and at the same time well, and many have been sailing very close to the profit-disappearing line. In fact, some of them have got so close that there is small likelihood of dividends being declared.

Touching on this point, a well-posted English writer says:

"The makers of cheap bicycles have been kept employed, but the others probably have done little.

"The fact is, cheapness has again ruled the roost, and it seems foolish to look for any other kind of cycle trade on a large scale in the future. Then prices of materials, which rose so appreciably in the winter of 1899-1900, have fallen but very little, and while there has been some saving in the matter of workmen's wages it has not been sufficient to make up for the difference between old and new prices of machines.

"Another trouble has been the growing demand for variation of specification, which naturally is fatal to the production of large numbers of machines of a standard pattern, while cost is increased and there is delay in getting work out of hand."

5000 Inquiries About Motocycles.

As the result of their advertising in the general press the Wisconsin Wheel Works say that within sixty days they received upward of five thousand inquiries regarding their motor bicycle, a fair proportion of which developed into orders. It supplies a clue to the extent of the public interest in the new machine.

COSTS OF CONSTRUCTION

How Parts Makers Reduced Them—But Distinctive Features are Still Valuable.

Penny wise, pound foolish, is apparently considered a good policy by no inconsiderable number of concerns. They will go on, year after year, doing the same thing simply because they started it years ago and have not the enterprise or courage to make a change.

There was a time, in the heyday of the trade, when expensive processes of manufacture were adopted almost solely because they were expensive. There was a feeling that expensiveness and merit were pretty closely linked, if not synonymous. The best must be had, regardless of cost, and if the latter should happen to go high it was considered to be rather an advantage than a drawback. High grade was a cry to conjure with, and high price was a good stable companion.

This was all very well as long as no one tried to make good machines or parts cheaply. But when this was tried, and successfully, the entire face of the matter was changed. Between a part good enough to stand up and another of the superlative class there was a vast difference as far as cost was concerned, but a very small one in the matter of giving service.

The consequence was that the cost of construction took a big drop. Makers who could not or would not see the handwriting on the wall, and regulate their business accordingly, fell by the wayside sooner or later. The remainder faced the problem of reducing the cost of construction, and many ultimately solved it. They discarded obsolete processes, sold or threw away antiquated machinery, and in general trimmed their craft so as to sail with the prevailing winds.

But there were others who only went half way. Long after the parts-making industry had developed to such an extent that the product was equal to and very much cheaper than anything turned out of the cycle concern's factory, many of the latter continued to do such work.

The machines were there and they might as well make use of them, such makers would say. They could not afford to have them idle, and as they must have the bolts and nuts or axles or sprocket wheels they might as well make them, even if they did cost more. The difference was slight at the most, and it would be more satisfactory to make these parts and thus know just what was going into the cycles.

It never seemed to occur to them how foolish such a policy as this really was. If they had taken the machinery and sold it for junk, or even dropped it in the river, they would have made a good move.

Of course, there were times when a dif-

ferent course was wisely pursued. Distinctive features were, and are even now, worth something. It was a good stroke to retain them in some cases, even though they did cost a little more. They helped to sell the cycle, and thus added to the value of the latter and struck a balance.

Everything in the Crank Hanger.

Much attention is being bestowed across the water on two-speed gears, and some excellent devices are being turned out. One that bears all the earmarks of unusual ingenuity, the product of a firm of English engineers, is thus described:

"The great point in favor of the gear is that it is equally efficient whether at the normal (high gear) or when the lower combination is switched in. The difference in ratio between the normal and the lower gear is 28½ per cent. The gear is known as the Paradox, and solves the difficult problem of expanding the chain wheel without disturbing the pitch or interval between the teeth, and this no one has succeeded in accomplishing.

"When it is desired to change from the low to the high gear it is only necessary to manipulate a lever worked through a wire, which can be fitted either upon the handle bar or top tube, and the wheel is expanded to its full diameter by the mere act of pedalling. When the low gear is required the change is effected by back pedalling.

"It should be understood that the gear is entirely contained in the bracket chain wheel, so that the free-wheel clutch in the hub chain ring is in no way interfered with, and the bicycle is free on either speed. It also permits the locking of the pedals, so that the crank cannot be moved either forward or backward, and this is very pleasant to some riders when free-wheeling. The slack of the chain is taken up by a small jockey, which is so fitted that the sag of the chain is very slight, and if a gear case be used very little alteration in the shape is necessary. The fitting of the gear interferes in no way with the construction of the bicycle itself. It only necessitates a new crank axle and bracket chain wheel, the tread being increased less than a quarter of an inch.

"The mechanism by which the expansion of the chain wheel is effected is beautiful in its simplicity."

Stole Sixty Tires Before Caught.

Not until about sixty tires had been stolen from the store of Alexander & Elmer, Hartford, Conn., was suspicion of theft turned into certainty. Then Charles Campbell, who was in the habit of favoring the store with a great deal of his time, was arrested, charged with the robbery. It is asserted that he was in the habit of stealing a certain style of tire that the firm made a specialty of. Ultimately the tire found its way into the hands of some rider. It is asserted that Campbell disposed of them to dealers.

FOR THE SINGLE-TUBE

Hinchcliffe Speaks Out in a Manner That Must Amaze his Countrymen.

Ben Hinchcliffe, one of England's rare old veterans, who migrated to this country, and then after a term of years returned home, is proving that he learned a thing or two while here.

He has taken the pro side of the argument regarding single-tube tires that is being waged in the British press, and his testimony is such that it scarcely seems that it can fail to bear some weight in forcing the single-tube wedge into the English market, and thus aid in giving the foreign makers, dealers and riders some relief from the pressure of the Dunlop monopoly. Mr. Hinchcliffe writes:

"So far as my experience goes, a properly made single-tube tire is far ahead of the double-tube tire for speed and comfort—in fact, my practical experience proves to me that I had far less trouble generally in eight years in the States than I have had in the last three years on the best makes of double tubes in England.

"When I say far less trouble I mean that in the case of puncture they are easier to repair, as it is seldom necessary to take the tire off the rim, but in case it is necessary I would much rather handle a single-tube than attempt to remove and replace some double tubes I have had experience of. A single tube seems to stand up longer than a double tube. This is brought home to me by the fact of a fairly frequent use of the pump on double tubes; far more than I ever had occasion to do on the single-tube variety.

"There is one objection against single-tube tires, and that is in the case of a bad gash by a flint or piece of glass; but I think a temporary repair could be made with the aid of rubber patches and tire tape, which would be effectual until a permanent repair could be made.

"Of course, I am only speaking of the best class of tires—inferior and shoddy goods will give trouble and annoyance whether they be single or double tube, and I must confess that I have seen more shoddy American goods on the English market than ever I saw in the States. I think this country must have been a dumping ground for some of the worst stuff turned out in the States.

"In conclusion I can only say that from my practical experience I have had more comfort and less trouble in regard to rim and tires when riding a good make of single-tube tire fitted on wood rims, and think that as they become better known they will be almost universally used."

"The Motor: What It Is and How It Works." See "Motocycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York. ***

THE BICYCLING WORLD

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should

Address us at P. O. Box 649.

NEW YORK, JULY 18, 1901.

Purchasers' Ways are Altering.

If the philosophers are to be believed, the passage of time is almost certain to bring about a return to first principles.

Until within less than a decade ago the effort of nine cyclists out of ten was to buy the best machine that they could find and afford. As a rule this meant also the highest priced.

It is encouraging to notice how this practice is being revived.

The bulk of purchasers are still, and will probably always be, devotees of price. They do not want to buy the best absolutely; at the most it is the best for the money they are looking for. Not infrequently it is cheapness above all else. No price could be too low for them. If the minimum were \$5 and the maximum \$25, they would still be found purchasing the \$10 and \$15 kind, preferring to save a few dollars even although they were convinced that better machines could be purchased.

At the same time, there is a small but steadily growing class of buyers who want

the best absolutely. They do not higgler over price. It is only necessary to convince them that by paying \$5 or \$10 or even \$25 more they can get a higher and better type of the cycle maker's art, and they will take it almost without hesitation.

The man of standing, with the ability to pay for the best, wants something different from the \$12.99 class of machines.

He would frequently decide on a chainless, a cushion frame, a coaster-brake—or all three—merely to be distinguishable from the crowd.

But when he is shown—a matter easily demonstrated by any dealer—that these are better, that they will give him additional value for his money, add fresh zest to riding—the chances are ten to one that he will not hesitate a minute.

He never regrets his decision. He has the consciousness that his machine is better than the ordinary, and that everybody knows this. This, added to its real superiority, more than compensates him for the extra outlay.

If dealers would play more on this string—arouse the pride of their customers—they would frequently find their business a more remunerative one.

Sentiment and Second-hands.

Even to-day, when the second-hand bicycle has fallen almost as low as it possibly can, it still retains a value. Provided it is of not too antiquated a pattern, and is rideable after a fashion, a purchaser can still be found for it.

The demand will not, of course, absorb any large quantity of such machines. Buyers usually prefer new machines, and it is only when they prefer a second-hand of reputable make to one of the multitude of cheap machines to be had everywhere, or when the price is the all important thing, that they can be induced to look at the cast-offs. For every such buyer there are a score of machines of the kind wanted.

But the shrewd dealer knows that even the most unpromising specimen has a value if rightly handled. It may bring only a few dollars—certainly not to exceed five—and of this twenty-five or fifty per cent may represent the outlay on it in repairs or parts. But even such a small amount is too much for the average dealer to throw away. To him the machine is something more than steel and rubber and leather. If it is capable of being ridden he feels that somebody should be given the opportunity to ride it.

No matter how much the dealer may be

tempted to throw such a machine into the rubbish heap, something stays his hand. Perhaps it is sentiment. By whatever name it may be designated, it exists and is responsible for the long life of many machines.

Worth Looking Into.

In times past, when it was the custom to present tires to all riders who showed an unusual turn of speed, tire makers found very little profit in catering to racing men.

Perhaps that not altogether pleasing experience will be recalled when it is suggested that the trade of the racing men is at the present time worth having. The burnt child dreads the fire, says one old saw, but another more applicable to the matter is the one relating to the hair of the dog that did the biting.

Racing men nowadays are much more moderate in their demands than formerly. Indeed, it may almost be said that they make no demands. Requests would be the more proper term.

As far as tires are concerned, the racing man long ago found out that gifts were no longer being placed in prize packages and distributed gratis to all and sundry. Instead, unless the man was particularly favored, he had to pay for these expensive but very necessary articles.

Now, even the sprint racing man uses a great many tires in a season. They are of small diameter and with exceedingly thin walls. Consequently they wear out very quickly.

With the motor-paced followers the matter is a much more serious one. Both on singles and on tandems, but especially on the latter, the pace is one that kills—kills the tires in short order.

We have it on unquestionable authority that one very celebrated make of tire, noted for its speed, becomes unreliable after it has been ridden about eight miles on a pacing machine. The rider who undertakes to run this tire a greater distance is courting defeat.

Other tires will run longer distances continuously without danger of collapsing. One tire concern in particular is making a strong push on a special tire, one of the usual size, but having six plies of fabric, and it is very satisfactory indeed.

But the ordinary tire goes to pieces in an almost inconceivably short running distance. On cement tracks they are worse than on wooden ones. The roll and slip of the tires as the machine goes around corners crush

the fabric and render it useless as a means of confining the air.

The tire concern referred to is making a great hit with their six-ply tire. A large number of pacing machines are fitted with it, and the list is being added to every day.

It is scarcely necessary to add that tires of this description cost considerable money, and there should be a fair profit in them.

Interesting the Editors.

Undoubtedly some of the diminished interest in cycles and cycling is due to the diminished interest of the public press. Where formerly papers devoted columns to the subjects they now give inches, if, indeed, they give any space at all.

It is not that the desire is lacking, but that printable matter appears to be scarce. Given the matter, there is small doubt that not a few papers throughout the country would welcome the opportunity to again "give the bicycle a show."

It rests with the dealers themselves to bring about such a state of affairs. In another column Jarvis & Daniels detail the manner in which they have contributed to the result in Grand Rapids. There is every reason why the same method and argument will prevail elsewhere, if not everywhere, if they are but properly brought to bear.

Don't End With the Sale.

How many dealers are there who consider their duty done once they have sold a customer a bicycle?

If cash has been paid for the machine, much more thorough is the figurative washing of hands indulged in. The future of the machine or its rider are matters frequently considered to be without the purview of the seller.

A very little reflection will convince those not already convinced that such a course is the worst possible policy. The purchaser is almost certain to have things—even if only little ones—go wrong with the machine; to need a little attention or advice for several weeks at least, and to be in a mood to appreciate an interest shown in him and his machine, even though such interest may not be absolutely necessary.

But there is another side to the matter. The dealer's business success is bound up with the interest his customers take in their cycles. If they ride early and often he profits in numerous ways—he sells new machines as well as second-hands, increases his repairing, helps the circulation of sundries,

etc. If they cease riding, or ride but little, just the contrary is the result.

If all this is borne in mind, and dealers look after the business in all its phases, they will frequently be surprised at the result.

Merrill's Method

What Fred T. Merrill says in another column regarding local advertising will bear respectful heed.

Merrill is one of those aggressive fellows whose aggressiveness sometimes roils those whose ideas of dignity it upsets; but for all of that Merrill has left an indelible mark on the cycle trade of the Pacific Northwest; his energy is not to be denied, and people who are able to appreciate shrewd use of printer's ink will readily award a laurel wreath to the same Merrill for his shrewdness in that regard.

He early took his stand for the high-grade bicycle, and he has fought it out on that line with a persistence that compels admiration. He has not merely talked against mail-order and bargain-counter bicycles—he has advertised against them, and advertised boldly, broadly and in language which, if not dignified, has not been capable of being misunderstood. He has not worn kid gloves or used a tack hammer in delivering his blows. They could scarce fail of effect, and of effect that could not but benefit the entire retail trade.

It is not in every man to follow Merrill's methods. Comparatively few in the retail cycle trade seem to possess his keen appreciation of advertising. Others may have it, but an excess of dignity forbids their showing it. Between the two elements the shy-sters and tricksters of the business pass unchallenged save by word of mouth, which is heard only by the few. Merrill's method consists substantially in putting into print what he says with lips.

If others would similarly warn the public, as he urges, there is small doubt that the better bicycles would come more fully into their own.

Gears and Sprockets.

The craze for sprocket wheels of excessive size, which raged so violently a few years ago, appears to have almost entirely subsided. The ten, eleven and even twelve tooth rear sprockets, once so familiar, are now seldom seen. As to the front one, while gears are still increasing, thus making any marked diminution in size out of the question, they have not resulted in the use of larger sprockets. In fact, it is quite safe to

say that the movement has been in the other direction. As a rule, riders who affect high gears now prefer to have the rear one extremely small, thus, of course, reducing the size of the front one correspondingly. We have of late observed some unusually small ones—sprocket wheels on the rear hub scarcely larger than the barrel of the hub itself.

Riding to Lose.

It seems about time that the N. C. A. made a more strenuous effort to enforce its recently promulgated ride-to-win rule.

On Saturday last at Manhattan Beach, and under the very noses of not a few N. C. A. officials, Gascoyne gave a first-class illustration of how to ride to let some one else win, the some one in this case being his team mate, Jenkins. The latter was on the limit mark in a handicap event, Gascoyne being on the mark next behind him. When the race was started Gascoyne made no effort to catch Jenkins. He rode just fast enough to let those behind him catch up, and then, if anything, he rode even slower. Jenkins looked behind him just once, and, seeing that the game was working, he ran like a scared deer and won by twice the length of his handicap. The fact that Gascoyne was not riding to win was plain to apparently every one, including the officials, who also saw it, but who "winked at it."

On a horse track such riding is equivalent to "pulling a horse," and receives the punishment that such an offence deserves. It is no less an offence in cycle racing.

The trick is not a new one. It was worked by three Buffalo amateurs at Madison Square Garden the week previous, and is, indeed, one of the oldest on the cycle racing calendar. Its age, however, does not make it the more honest. The N. C. A. should stiffen its backbone and break up the practice.

Spring seat posts have never received that share of attention from the retail trade that they deserve. They give great room for effective talk and if the effort were made undoubtedly many of them could be sold to riders of rigid frame bicycles who cannot afford the price of cushion frames or who cannot be induced to invest in the latter.

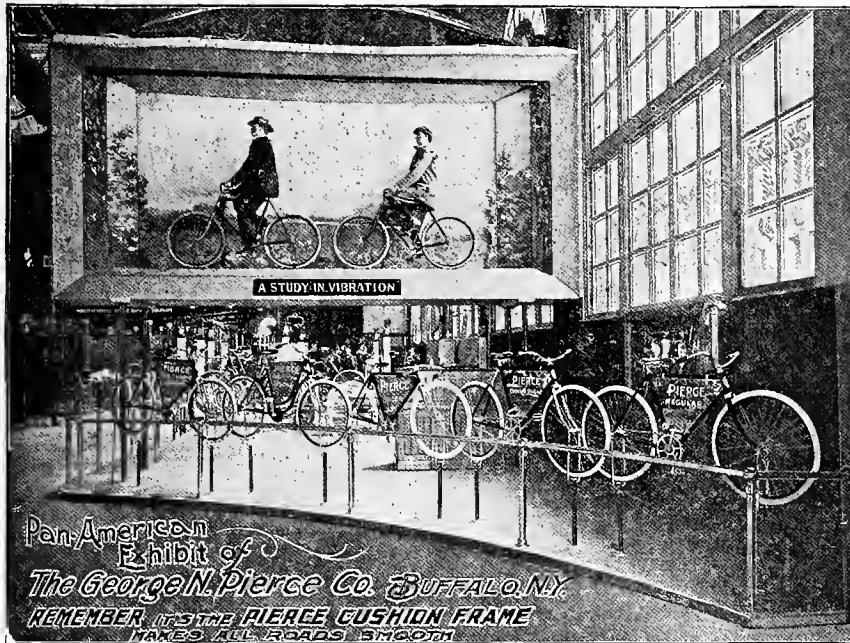
A "set" crank, designed to go on the chain side of a woman's bicycle and afford sufficient clearance for a chain guard, is a very simple thing. Yet it is impossible to buy one except from makers or their agents to fit their particular machines.

AT THE PAN-AMERICAN

Pierce's Original, Lifelike and Effective Exhibit—Shelby also has a Striking and Instructive Display.

What is probably the most pretentious and strikingly effective exhibit ever made by a

lated to evoke admiration. The illustration shows its general appearance and gives an idea of the part that the tubing itself plays in contributing to the effect. In addition to tubing for bicycles, automobiles and boilers, the exhibit includes a number of mechanical specialties formed of tubing. The many and diverse shapes in which it is thus shown is an eye-opener and an object lesson to the



bicycle manufacturer is that of the George N. Pierce Co. at the Pan-American Exposition—"a study in vibration," they term it, and a telling illustration of the benefits of the cushion frame it certainly is. The accompanying picture will convey a general idea of the Pierce display, but it gives no hint of the action involved. The two figures represented are not paintings, but are life-size automata, each weighing about 160 pounds; the one in front is mounted on the Pierce "pet"—the Pierce Pan-American cushion frame chainless; the one in the rear is astride a rigid frame bicycle, and both are riding on a cobblestone road. By an ingenious arrangement, action is imparted to the figures, and while the one on the cushion frame scarcely moves, the one on the rigid frame is jolted and jarred until he appears suffering from an attack of ague; the while, the painted scenery which forms the background moves in a constantly changing panorama, increasing the optical illusion that the figures themselves are actually moving forward.

The whole effect is not only attractive, but instructive, and one that cannot fail to excite curiosity and inquiry.

The exhibit of the Shelby Steel Tube Co. at the Pan-American is another one calcu-

lated to evoke admiration. The illustration shows its general appearance and gives an idea of the part that the tubing itself plays in contributing to the effect. In addition to tubing for bicycles, automobiles and boilers, the exhibit includes a number of mechanical specialties formed of tubing. The many and diverse shapes in which it is thus shown is an eye-opener and an object lesson to the

Corn as Rubber Substitute.

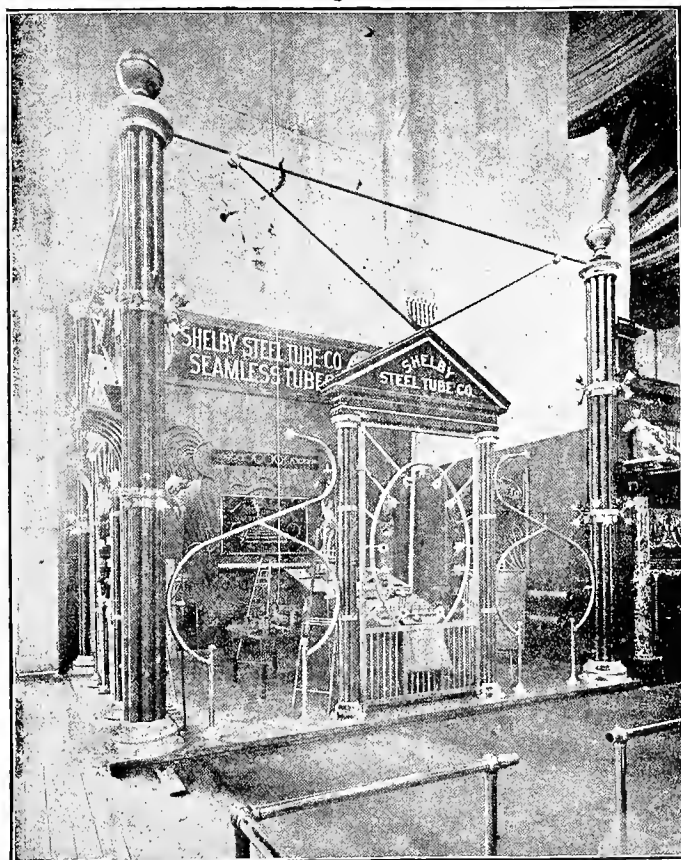
The trade may rest easy. The question of a future rubber supply has been settled. That is, if the present drouth in the West does not ruin the corn crop. If this should come through all right there will be rubber for everybody—cheaper and better than the real rubber which comes from the trees.

For, be it understood, this is but a rubber substitute. Undeterred by the fate of a few hundred other substitutes destined to make real rubber a drug on the market, this one is heralded as the real article. So say the quidnuncs, at least. Listen:

"Those who have had misgivings on the subject of the rubber supply, and have feared that gum coats, overshoes and bicycle tires might become things of the past, may dismiss their fears.

"At the Pan-American Exposition there is being exhibited a substitute for raw rubber, made from corn, which is guaranteed to stretch and to turn water as efficiently as the best product of the rubber tree. The inventors of this substitute claim that it can be used in the manufacture of everything for which rubber is now used, including sheet rubber, bicycle tires, boots, shoes, coats, linoleum and waterproof roofing; and that products made from the corn substitute will be more pliable and less liable to crack than those made from the genuine South American rubber."

The Cooper Handlebar Co., of Detroit, is no longer in existence. Foreclosure proceedings were responsible for the end.



CORRESPONDENCE

Grand Rapids, Mich., July 11.

Editor The Bicycling World:

We herewith inclose you copy of paper which has a very good editorial on bicycle riding, which came about by our writing editors of our papers as per inclosed copy. We cannot help but feel that it would do the business much good everywhere if dealers would take the pains to write their papers similar letters calling attention to the fact that while they are devoting columns to baseball and other sports, from which they receive no remuneration, they almost ignore cycling, from which they get much advertising in return. Our papers saw the logic of this fact, and have waked up. Yours respectfully, JARVIS & DANIELS.

(Copy.)

"Grand Rapids, Mich., July 11, 1901.

"Editor of Press and Herald, City.

"Dear Sir: We regret noting that although you devote much space to baseball and other sporting and athletics—news from which you receive scarcely no support in an advertising way—you do not give the sport of cycling any space whatever to speak of, although there are more people interested in this than are now riding, and although you derive more remuneration from this sport than any other. The revival of cycling interest means much in the aggregate to yourselves as well as to us and the trade here, to whom we are addressing copies of this letter, with a view to endeavoring to have them lend all the support they can, according to the size of their business, to you, to whom we look to help to boom the sport along, since having us place the matter before you in the above manner.

"Fifty per cent of your readers are, we believe, more interested in cycling than any other form of health-giving exercise, and there are just as many readable articles as ever to be made from it. We trust you may see fit to give some attention to it, which we assure you will be much appreciated by ourselves and, we believe, the trade at large. We could often furnish you many articles that would not be objectionable, which appear from time to time in the cycling press and in daily papers from other cities.

"Trusting you will give such attention to the above as you think it justifies, we are, Yours respectfully,

"JARVIS & DANIELS."

Hartford, Conn., July 12.

Editor The Bicycling World:

We note in your issue for July 11 a quotation from an article by Mr. R. E. Froude in regard to the accuracy of cyclometers, in the course of which he states that our instruments do not register correctly within 2½ per cent. He acknowledges, however, that this is due to the fact that some of the 28-inch tires at present on the market are in

reality much smaller than this, the actual size varying from 27 to 27½ inches.

We have from the start been aware that there was a large variation in the actual diameter of bicycle wheels, and for six years all of our catalogues have contained directions for testing the accuracy of the cyclometer. The gearing which was finally chosen for our machines was the result of a long and careful series of experiments with actual wheels.

We have had occasional complaints from parties who are using the undersized tires, and somewhat over a year ago we got out a special gearing to supply this small demand. This special gearing we call our 27¼-inch, but it would be correct for an incompressible tire 26.97 inches in diameter, the amount which is allowed for compression being about the same as for our regular 28-inch cyclometer. There has been but few calls for these instruments, and we have not thought it worth while to put them in our catalogue.

We intend to keep fully posted and have our instruments up to date in every respect, and we think it is hardly fair to criticise machines which are used for purposes other than that for which they were intended. The following article from our catalogue, on accuracy, bears directly on the subject:

"A 28-inch wheel with an incompressible tire will revolve 720 times per mile. If the tire compresses ¼ inch—that is, if the diameter is equivalent to 27½ inches—it will revolve 733 times per mile. We have after numerous tests chosen as our standard for a 28-inch wheel 728 revolutions per mile, which we now know to be a fair average, and productive of practically accurate results. The wheel will then move ahead 87 inches for every revolution.

"To test your wheel, place your bicycle on a smooth floor with a rider in the saddle; mark the tire and the floor under the centre of the wheel; then carefully push the bicycle ahead in a straight line until the mark on the tire again comes under the centre of the wheel; mark the floor again opposite the mark on the tire. If the distance between the two marks on the floor is 87 inches, the cyclometer will register correctly."

Yours truly,

THE VEEDER MFG. CO.,

C. H. Veeder, President.

Portland, Ore., July 5.

Editor The Bicycling World:

I was quite surprised to see one of my display advertisements reproduced as a reading article in your issue of June 27. I thank you, though, just the same.

Speaking of "throwing dignity to the dogs," if the large bicycle dealers throughout the Eastern States would have thrown a little of their "dignity to the dogs" a year or two ago the slump of the bicycle trade in your part of the country would hardly have been felt.

Straight, old-fashioned advertising is all right where a firm in a town has a monop-

oly, but where department stores and unscrupulous dealers jump into the business with an immense stock of shoddy goods and advertise it as high grade it is about time that legitimate bicycle dealers who expect to continue in the business should come to the front and boldly publish facts in their advertising spaces.

I might say to you that my aggressive way of advertising and the fact that I threw my "dignity to the dogs" has been the real cause of the high-grade bicycle business in this Northwest country.

I have personally talked to the managers of the big department stores in Portland, Spokane, Seattle and Tacoma for the past four or five years, and have succeeded in keeping them from entering into the bicycle business in any manner. A few of them have sold bicycle sundries, and they are now negotiating with my firm to take over the balance of their stock, agreeing to not handle bicycles or bicycle sundries in any manner hereafter.

The few bicycle dealers who have come in with a stock of shoddy wheels find themselves with 50 per cent of the stock left on their hands.

The facts of the case are that if the legitimate bicycle dealers throughout America want to retain their business they must boldly "declare themselves" against bargain-counter bicycles and shoddy trash of all kinds.

The weather conditions in the Northwest have been very bad this season. We have not had over six weeks of good weather since January 1, and the bicycle business has, of course, suffered.

The bicycle dealers who have depended on one retail house in a city have certainly made no money. We have no complaint to make, for we are doing to our certain knowledge over 65 per cent of all the bicycle and bicycle sundry business that is being done in Oregon, Washington and Idaho; and we are still pegging away, and will reduce our stock to a very low degree by the latter part of August, and will have pretty clear decks for the 1902 battle. Very truly yours,

FRED T. MERRILL.

Rather Unusual Advertising.

This rather unusual advertisement appears in a Los Angeles (Cal.) paper:

"To Whom It May Concern:

"We hereby give notice that one Hoffman gentleman's bicycle, No. 4388, 1896 model, was left at our shop for repairs by M. G. Williard on or about January 1, 1901, and will be sold at public auction to satisfy bill of repairs, at 10 o'clock a. m., on Wednesday, July 17, 1901, at our store, No. 327 South Spring street, if not called for in the mean time.

WILLIAMSON BROS."

"Defects (in motorcycles) and How to Remedy Them." See "Motocycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York.

PHYSICIANS FAVOR IT

Two of Them Giving Telling and Practical Testimony for the Motor Bicycle.

The testimony of physicians is always supposed to carry very much more weight than that of ordinary mortals—so much weight, indeed, that the press agent of a certain trust has been known to connive at the use of the “manufactured” testimonials of the sort.

However that may be, medical testimony bearing on the motor bicycle is certain to play a part. American physicians have yet to be heard from, but abroad they are giving evidence in considerable numbers—evidence, too, that is genuine and of good effect.

“While I have never owned a tricycle, I am quite aware of its advantages and disadvantages, and, in my opinion, the latter outweigh the former,” says Dr. C. Whitehall Cooke, of London. “The points in which I consider the bicycle scores are cost, absence of engine vibration, simplicity and small space required for storage. The advantage of one track over three tracks is obvious, added to which its average speed is higher than most of the tricycles one meets on the road. The question of vibration is a serious one to a medical man. After driving several miles in a machine in which the vibration is very marked, a man is not fit to do much in the way of delicate surgical manipulation. For these reasons, therefore, I adhere to my original thesis, viz., that for a medical man who wishes to use a motorcycle for professional work the two-wheeler is better than the tricycle. Any one who will try one of these wonderful little machines for a long day’s ride will be astonished at what it can do. I can ride such hills as Holywell Hill, St. Albans, Bushey Hill, Watford and Heath street, Hampstead, by helping the machine with not very laborious pedalling. I may say, too, that I have been over some very greasy wood and stone paved roads without a suspicion of sideslip. I believe the absence of vibration and sideslip in the Minerva type of bicycle is due to the position of the motor. Probably not the least good point about a belt-driven machine is the fact that if the motor breaks down the belt can be taken off and the bicycle pedalled home with very little exertion.”

As showing the interest in the subject, Dr. Cooke states that the publication of his views in a medical paper brought him more inquiries than he had time to attend to.

Dr. Alfred Hartley, in concurring with Dr. Cooke’s opinion, adds an interesting indorsement:

“During the last thirty years I have used nearly every form of cycle, from the bone-shaker to the motor car,” he says, “and have come to the conclusion that the handiest and most powerful kind of machine for the single

rider, such as a medical man, is the motor bicycle. It is no use taking an omnibus about with you when you can ride a horse like the motor bicycle. The machine need only be strong and heavy enough to carry yourself and the engine.

“The great advantage of this lightness, as compared with other motors, is twofold: 1. By the aid of your feet you can at any moment convert a one-horsepower motor into a two-horsepower one, or more, at will, and you get a very decided result—more than I have noticed in either a tricycle or quadricycle. 2. If anything goes wrong, such as an accumulator run down, you can switch off your belt and come home at once. This happened to me the other day, eight miles from home, and I was surprised at the ease with which I pedalled home at thirteen miles



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

an hour. This is most important to a busy man.

“Other advantages, such as single track, the ease with which it can be stored and taken into a doorway or carried by train, must be evident to all.

“My machine has been everything that could be desired. Its pace is somewhere about twenty-eight or thirty miles an hour when required. It has a back-pedalling brake, as well as free wheel, which I should advise no one to be without.

“Altogether, I feel better mounted in the cycle way than I have ever been.”

Sanger on Motorcycles.

Walter C. Sanger, formerly of the Sanger Handle Bar Co., and one of the ex-kings of the path, is now on the road for the Jonas Cycle Co., of Milwaukee, selling Jonas motor bicycles, which are fitted with the Merkel equipment. Like nearly every one else who has had a good taste of motocycling, Sanger has become a motorcycle enthusiast; and, although himself a powerful pedal pusher, he says that as between having a motor do the pushing and doing the pushing one’s self there is only one choice.

CHECKING THE THIEF

Some Means Employed and how the Thief Goes Them “One Better.”

Many old riders will remember the detachable saddle cover used on the Victor high bicycle. Those concerned in the sale or use of this famous machine dilated with much pride on the utility of this little “kink.” If it should rain, they would say, there would be no danger of the saddle cover becoming soaked while the machine was standing, and then dry all out of shape.

Another point touched on sometimes, although not often, was the protection against thieves afforded by this device. Cycle thieves were scarce in those days, and riders did not have to take any great precautions in order to keep their machines from their clutches, however.

At the present time it is very different. Many ways of protecting bicycles are in use, and, notwithstanding the extraordinary care taken, the thieves’ yearly haul is a rich one. As soon as a check to their nefarious practices is found they go to work to devise a way of getting the better of it. It need scarcely be said that they frequently succeed, unless they are matched against the vigilance of the owner.

One shrewd thief has hit on a way of circumventing a preventive which is based on the old Victor idea referred to above. This was a seat post placed on the market some time ago, so constructed that it could be quickly detached without the use of a wrench. Thus one of its advantages was the ability of a rider to take off his saddle and carry the saddle and seat post with him into the building in which he had business to transact, leaving his wheel in unridable condition at the curb.

The argument was a good one until a clever bicycle thief made the rounds with a duplicate seat post and saddle tucked under his arm. Many a cyclist is still looking for the wheel left at the curb, while some wheel thief is doubtless to-day enjoying the results of his shrewdness and rascality.

Where the Rubber Comes From.

The total world production of rubber is estimated at 99,207,000 pounds, of which nearly two-thirds comes from the Amazon Valley, one-third from Central Africa and one-twentieth from Asia. Most of the rubber produced is imported into this country. Abroad, Liverpool imports more than all other European ports combined.

Goodyears Abroad.

The Goodyear detachable tire, with a corrugated outer cover, has made its formal appearance on the other side, where it is reported to be meeting with considerable favor. The Goodyear Co. has established offices at 5-7 Singer street, London,

RACING

It is possible that, barring pacing mishaps, Nelson might have beaten Stinson at Madison Square Garden on Monday night. But the probabilities are all the other way. The Cambridge man was a star of the first magnitude, and while he was plainly drawn out for a few miles in the latter part of the race his wonderful recuperative powers came to his aid. At the end he was himself again and getting a little the best of the Swede, although he had a safe lead. Nelson got his pace first, and led by a third of a lap by the time the Orient rider was fairly going. But his advantage ended there, for with an electrifying dash Stinson started after him. Gradually he closed the gap, and then, without a falter, he went by with a rush, high up on the bank, pacing machine and racer going together like clockwork. Indeed, no higher praise of the Waltham outfit could be given than by stating that the two machines seemed to be as one from start to finish. Nelson's machine cast a pedal, and the steersman gave a fine exhibition of nerve and skill by riding for miles with one leg hanging loose. Of Nelson's two spare machines, at this point one failed to work, the other cast a chain. When these troubles were remedied Nelson got back one of his laps, but was 4 laps behind when the 15 miles had been covered. Stinson's time was 25.42 2-5. The amateur events were interesting and marked by few falls.

At Manhattan Beach on Saturday last the long, lean, lanky Elkes simply rode rings around Walthour and Michael in the one-hour race that was the feature of the meeting. The race was never in doubt. Elkes let Walthour lead for two miles, and then, following the most disreputable appearing motor tandem on the track, he went ahead, and, riding without a flicker, won by 3½ laps, doing 37 miles 2½ laps in the hour. After gaining a lap and a half on Michael, Walthour cracked badly, and the midget, coming with a wet sail in the last ten minutes, excitingly had made up all but a scant yard when the gun fired. The race was conspicuous by the absence of any suspicion of motor trouble. In the short races Kramer in the 1-3 mile made Cooper, Wilson and the other men look like cart horses; he came from the rear in the last 100 yards and won by an open length. In the half-mile handicap Jenkins (45 yards) won with the help of his team mate, Gascoyne (30), who rode slow enough to hold back the back markers while Jenkins stole a long lead. In the amateur class Hurley, after winning the half mile in hollow style, did a grand performance in the two-mile handicap. He did not catch the bunch until the last lap, and then worked his way through some thirty men and finished third by a length to H. Welsing (60), first, and Schofield (90), second.

With team work permitted and openly indulged in, the mile professional race at Vailsburg on July 14 was a tremendous success. Head work, team work, leg work—all were factors in this race, and the big audience went wild over the finish, which was the culmination of four splendid heats. Kramer on his Pierce won in a driving finish over Freeman, the men being perfectly shielded and paced by their team mates, Fisher and Downing. McFarland and Cooper were shut out of their heat by Freeman, largely owing to the hot pace set by the lesser lights in their eagerness to earn the \$2 lap prizes. To the surprise of even the cognoscenti, Kramer was lost in the shuffle in the half-mile open, Fisher winning a beautifully ridden and judged race. "Ginger" Hurley was slated to go for the 5-mile amateur record, but it was not to be a Yale day, and owing to the withdrawal of two men in his "ladder" and the desperate riding of the nearest men, 60 yards, he could not get a place. Instead Zurbrick tied for and won the coveted honor. Time, 11.29 3-5. The places were all won by the long-mark men.

The N. C. A. has fixed the price of fraud. It is so cheap that a choice crop of fakirs should result. Fred Hoyt, who, after brazenly denying that he had used a catgut towline in an important race, finally broke down and confessed, has, presumably as a reward for his "honesty" and "truthfulness," been given the option of paying a fine of \$100 or being barred from the track until Sept. 15 next; if he pays the fine he cannot ride in open or match races, but may appear as a pacemaker. Mosher, who paced Hoyt in the race in question and who held the other end of the towline, is let off with a fine of \$25. In the face of the \$100 fines inflicted on Taylor for his non-appearances and of one year's suspension meted out to an amateur who rode in a novice race after having won a prize, this is jughaunted justice of a disgusting character. It is charitable to assume that the N. A. C. either fears some one or is not particularly concerned in keeping the sport clean or that Hoyt has a powerful "pull" of some sort. If the officials who inflicted the farcical punishment are not now ashamed to hold their heads high they ought to be.

It is pretty safe to count on Champion's doing the unexpected. In defeating two such good men as Moran and Walthour at Charles River Park, Boston, on Tuesday night he but lived up to his reputation. The event was a 25-mile paced race, and the story is told in few words. Motor troubles were non est, and Champion rode faster than either of his opponents. The Chelsea milkman was only 12 yards to the bad, however, while Walthour still had two laps to go. Time, 39.45 3-5.

Piasco was writ large all over the so-called international race between Linton and Taylore at Baltimore on July 10. It was at

20 miles, motor paced, and the Englishman came out first best, defeating Taylore by a trifle over 2 miles. Time, 34.26 2-5. Taylore's pacing machines gave trouble from the start to the finish, and Linton also had some trouble. There was no real contest, and the audience left the grounds in a very bad humor.

Fate seems against the Bicycle Trust even on the track. Although the Trust has employed nearly all of the more prominent cracks to ride its bicycles, the corporal's guard of "independents" is winning most of the gold and glory. Kramer, on his Pierce, and Taylor and Elkes, on their Iver Johnson racers, are making the "Trusties" look like the proverbial sum of five-and-twenty-five cents, while Hurley, on his Yale, is practically unbeatable in the amateur class.

Kramer did not get a chance at the championship race in the National Circuit meet at Providence, R. I., on July 10, being nipped at the tape by his old foe, McFarland. The latter was in turn disposed of in the final, this time by no less a personage than Cooper. Fenn won the mile handicap from the 50-yard mark, McFarland, Collett and Kramer being the other paced men. Over 5,000 people saw the races.

The much-postponed Golden Wheel race was finished at Charles River Park, Boston, on July 12. Moran was the winner, as was expected. On this, the last, night he covered the great distance of 74 miles 142 yards, making his total score 416 miles 1,042 yards. Stinson finished second, with 411 miles 542 yards; third, Albert Champion, 400 miles 47 yards; fourth, Nelson, 393 miles 1,655 yards.

Fisher and Fenn were the bright particular stars in the National Circuit meet at Worcester, Mass., on July 12, to the great surprise of those other two shining lights, Kramer and McFarland. The mile championship went to Fisher, with the other three men named placed in that order. Fenn also captured the 2-mile handicap, with 60 yards' start. Kramer, scratch, was second.

At Berlin on July 11, in the international championships, the 100-kilometre world's amateur championship race was won by Sievers, of Friedeman, in 1.44.39. Salzman, of Heidelberg, was second, and Coernemann, of Berlin, third. Tuichard, the French champion, gave up at the 90th kilometre. Sievers is sixteen years old.

After winning both his heat and the semi-final Frank H. J. Denny, the Buffalo amateur, was beaten in a close finish in the final of the world's championship race at Berlin on July 14. Denny will return in time for the national championships at Buffalo.

On the new board track at Butte, Mont., last week, a Californian, Hoffman, rode a mile in 1.58¼, erroneously claimed to be a world's record.

STANDARDIZATION AGAIN

Reforms That Have Been Effectuated ; Others That Would Help Matters.

Standardization of bicycle parts is a matter that has not made the progress in the past half dozen years that was expected. It seemed probable at one time, so great was the demand for a reform in this matter, that makers would be compelled to meet public expectation by inaugurating a movement for the standardization of the principal parts at least.

It is scarcely necessary to say that this expectation has not been realized. Perhaps one reason for this is to be found in the fact that some parts were standardized, and the chief cause of complaint thus removed. Riders now have no trouble in fitting saddles to posts, pedals to cranks, handle bars to steering posts at random; or, at least, so little that it is scarcely worth mentioning. Therefore, they are pretty well satisfied; for while the occasion may arise for something beyond this, it is not very likely to do so.

Whether any further progress will be made it is not easy to say. There is no sign of it at present. Riders appear to be satisfied, the retail trade complains little if at all, and it is not to be expected that the makers will move unless there is some strong impelling force to urge them on.

It is really the rider who has most at stake in this matter. He would be the one most benefited by the adoption of standard parts, and, after all, it is doubtful whether he really desires all the parts standardized. Such a change would destroy the distinctiveness of many machines and accomplish little if any real good.

This view of the matter is taken by a transatlantic maker. Touching on this subject he says that bolts and nuts should be to standard size throughout the machine. The threads on front-wheel and back-wheel hub spindles should be twenty-four or twenty-six to the inch, the former preferred if the majority of opinion did not regard that as too coarse.

With regard to the threads upon fork stems, he should favor the adoption of twenty-six threads to the inch, because this thread did not cut too far into the tube. The internal diameter of fork stems should be fixed at $\frac{7}{8}$ inch, but as he found some difficulty in getting tube dead this size he always caused them to be sized from 16 B. W. G. tube.

In the matter of hub and bracket, ball races and ball cups he does not think standardization quite practical. He considers uniformity herein would cramp originality of design, and different makers hold different ideas upon the subject. To attempt standardization of these parts would be to destroy the differentiating character of machines, and was going a step too far. In-

convenience from failure of these parts was of very rare occurrence, so rare with decently constructed machines that they might be disregarded.

Pedal axles and crank ends were now practically standardized, and although in view of what he had said with regard to ball races and cups he could not suggest uniformity of diameter of bracket axles, their crank-fitting ends might be standardized with advantage.

On Open-Sided Tires.

Writing of open-sided tires, i. e., tires having the usual outside strip of rubber only on the tread, which in this country have been used mainly on the track, a well-posted English rubber man says:

"If you get a tandem casing made of stronger fabric than the single casing, put a slightly thicker strip on the tread and cover the sides with mottled rubber, you get a tire that will stand perfectly on a tandem, and it is distinctly faster and more lively; the point which you want to emphasize when speaking of these tires is to remind the public that they must be carefully looked after.

"I do not think even now that it is advisable for these tires to get into the hands of 'mugs,' who will neglect them and will consequently have trouble. You should continually go over them and solution up cuts, smearing solution over places on the walls where the mottled rubber is cut or damaged."

Making a Good Job.

"Before brazing a front fork or frame the joints must be thoroughly cleaned and washed with borax water," says a practical man. "A few grains of brass and borax may be placed inside the blades, if it be a fork, and a distance spacer, or stretcher, such as a front hub spindle and nuts, placed in the fork ends to keep them steady and in position while brazing.

"When the joint has set, and while the job is still red hot, it may be treated to a lightening dip in a warm solution of alum and water; this, however, must be very carefully done or damage is possible. If it is done delicately, so that the solution shall not suddenly cool the structure, it will lift the scale off in a very effective way.

"After the dip the fork must be allowed to cool naturally, then tested again for accuracy. If correct, the filing may be proceeded with at leisure."

Should Appeal to Agents.

The planks in the "Racycle platform," as set forth in their advertisement in this issue, are of the sort that count and that should woo and win the agents who suffer and have suffered from the other "platforms" that are conspicuous only because of their many cracks and knotholes. As really honest preservers and protectors of the legitimate agent, the Racycle people have made a name for themselves that none can deny.

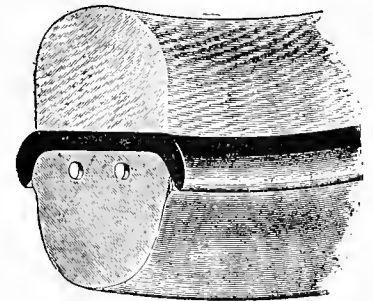
How to Make "Extra Money."

It is a subject with which nearly every dealer and repairman is concerned. Most of them want something to add to their bicycle work. They "scratch their heads" in the effort to "think up the something."

If you are of the number

WE CAN HELP YOU.

We make rubber carriage tires of all sizes. We can supply the tools with which to apply them, and our long association with the cycle trade tells us that the work of applying such tires to carriages dovetails well with cycle repairing and can be easily and profitably done.



While nearly every one in the large cities owning a buggy or other carriage has them shod with rubber tires, in most of the smaller places no one has made an effort to cultivate the trade.

Why should not you be the first man to do it?

At the prices we can quote you there's "extra money" in the business and you can get it if you make the effort.

Why not let us submit our proposition? We'll be pleased to do so on request.

STRAUS RUBBER & TIRE CO.,

351-353 East 41st St.,

New York City.

France's Heavy Purchases.

In a week of good shipments, France last week took a turn at leading in the demand for American cycle stuff. England, however, was a close second, and, with the British possessions and Germany and Denmark, made the export manifest for the week ending July 16 represent a snug sum. The record in detail follows:

Antwerp—20 cases bicycles and material, \$714.
 Amsterdam—52 cases bicycles and parts, \$1,037.
 British possessions in Africa—136 cases bicycles and material, \$4,525.
 British East Indies—26 cases bicycles, \$312; 1 case bicycle material, \$10.
 British Guiana—5 cases bicycles and material, \$91.
 Bremen—3 cases bicycles, \$80; 1 case bicycle material, \$140.
 British Australia—112 cases bicycles and parts, \$4,721.
 British West Indies—113 cases bicycles and material, \$2,310.
 Central America—3 cases bicycle material, \$71.
 Copenhagen—3 cases bicycles, \$150; 165 cases bicycle material, \$3,127.
 Christiania—1 case bicycles, \$42; 1 case bicycle material, \$68.
 Dutch East Indies—10 cases bicycles and parts, \$1,040.
 French West Indies—2 cases bicycles and material, \$47.
 Genoa—1 case bicycles, \$50; 8 cases bicycle material, \$360.
 Glasgow—18 cases bicycles, \$480.
 Havre—361 cases bicycles, \$7,651; 96 cases bicycle material, \$4,100.
 Hamburg—38 cases bicycles, \$1,746; 48 cases bicycle material, \$2,038.
 London—39 cases bicycles, \$1,378; 28 cases bicycle material, \$1,037.
 Liverpool—8 cases bicycles, \$1,708; 2 cases bicycle material, \$75.
 Lausanne—6 cases bicycles and parts, \$152.
 Moscow—1 case bicycles, \$47.
 Rotterdam—5 cases bicycles, \$118.
 Southampton—1 case bicycles, \$70; 72 cases bicycle material, \$5,360.
 United States of Colombia—1 case bicycles, \$15.

Of National Interest.

It is edifying to note, vide pretty nearly all the British cycle journals, that His Majesty Edward VII—bless him!—has presented the kingdom's future sovereign, Prince Edward of York, with a bicycle in commemoration of his birthday. It is also interesting to know that the said machine was, in size and other respects, a match for the childish prince, the wheels being fourteen inches in diameter. The usual plated parts were ordered enamelled. Perhaps this will start a movement for machines similarly finished.

"Motocycles and How to Manage Them"; 126 pages, 41 illustrations; cloth bound. \$1. The Goodman Co., Box 649 New York. ***

The Week's Patents.

677,907. Bicycle Lock. Thomas P. Vandeur. Clarence Road, Island of Jersey. Filed Aug. 13, 1900. Serial No. 26,782. (No model.)

Claim.—In a locking device for bicycles the combination with the handle bar and brake handle of a clamp or ring fixed to the handle bar and formed with arms or extensions, and a padlock the bow or bar of which is passed through a hole formed in the handle and through a hole formed in the arm so as to lock the brake handle to the handle bar and hold the brake hard against the wheel, substantially as described.

677,934. Acetylene Gas Generating Lamp. Leroy S. Buffington, Minneapolis, Minn., assignor to Buffington Light Co., of New Jersey. Filed June 28, 1897. Serial No. 642,591. (No model.)

Claim.—1. In an acetylene gas generator, the combination with a chamber for carbid calcium, of a yielding, movable part, which confines the carbid and residue in a compact body, which yields on the expansion of the carbid due to its decomposition, and means for supplying a regulated quantity of water to the carbid.

677,935. Carbid Cartridge for Acetylene Gas Generators. Leroy S. Buffington, Minneapolis, Minn., assignor to the Buffington Light Co., of West Virginia. Filed Sept. 10, 1897. Serial No. 651,158. (No model.)

Claim.—1. As a new article of manufacture, a charge holder for acetylene gas lamps or other generators, composed of a pair of telescoping cups containing carbid and adapted to be handled as a cartridge, substantially as described.

677,936. Expansible Carbid Cartridge for Acetylene Gas Generators. Leroy S. Buffington, Minneapolis, Minn., assignor to the Buffington Light Co., of West Virginia. Filed Sept. 10, 1897. Serial No. 651,159. (No model.)

Claim.—1. A carbid cartridge comprising a body of broken or pulverized carbid, a core consisting of a plate or plates of absorbent material within the mass of the carbid and dividing it into smaller bodies, and an absorbent plate in position to receive the water and transmit it to the core plate or plates, when the cartridge is placed in a generating chamber, the whole being put up within an inclosing case or shell and rendered impervious to moisture until brought into use.

677,983. Pneumatic Tire for Bicycles. Edwin Hemsted, Toronto, Canada. Filed Dec. 17, 1900. Serial No. 40,199. (No model.)

Claim.—1. In a pneumatic tire, a grooved rim, in combination with an outer cover; two divided flat steel bands, one of which is secured to each edge of the outer cover; means for fastening together the said bands one over the other; hooks engaging the ends of one of the bands and passing out through the rim; and nuts threaded on the stems of the said hooks and engaging the rim, substantially as and for the purpose specified.

678,047. Induction Coil. Harry Shoemaker, Philadelphia, Pa., assignor to Gustave P. Gehring, same place. Filed April 16, 1901. Serial No. 56,159. (No model.)

Claim.—1. An induction coil, comprising a central non-conducting core or spool, a series of metal disks fitting upon said spool and provided with air gaps between their ends, cup-shaped metal disks surrounding said spool upon either end of the disks and having an air gap between their edges, and a secondary and a primary coil mounted upon the disks in the space between them in the bent ends of the cup-shaped disks.

Says Cycle is Indispensable.

A few years ago such an item as the one following could not have been found in the columns of the press. Even when the boom was at its height a grudging recognition was all that could be obtained for it.

"Nobody talks bicycle now," says the paper referred to, "simply because everybody rides it. The wheel is now permanently established as a personal and commercial necessity—an indisputable factor of modern life. The trying period of costly experiments has been passed for the manufacturer, and the rider has the advantage of all that long experience has developed and proved to be advantageous and practical.

"In a word, the maker has now eliminated nearly all the bicycle's dangers and defects, and the rider has passed beyond the uncertain period of both the faddists who rode the bicycle because it was a new idea and the fashion followers who had to 'keep up with the procession.'"

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

Old Fashions Revived.

The racing man is a strange bird of passage, says an English observer. His fancies are ever fickle and changing. Last year he favored narrow handle bars, horizontal top tubing and a longish head to his machine. This year he has gone to the other extreme, and fashion now dictates a wide handle bar, the shortest of heads, a top tube raking sharply down from the saddle lug, and in many cases straight front forks. In fact, the standard racers of to-day have almost reverted to the hinge-joint, cross-framed machine of fifteen years ago! Thus does history repeat itself.

Commencing Thursday, July 11, the Boston & Albany R. R. will run vestibuled high-back seat COACHES between Boston and Buffalo, on trains 7 and 18, except Sunday, and on trains 29 and 36 daily. Also, Pullman parlor cars on trains 15 and 18, daily. ***

The Retail Record. CHANGES.

Danvers, Mass.—L. J. Ross, closing out bicycles.

Haverhill, Mass.—F. H. Fernald, Washington street, closed.

Bellows Falls, Vt.—Lawrence Cannon, Atkinson street, closed.

Fair Haven, Vt.—W. I. Smith succeeds Norton Hardware Co.

Brockton, Mass.—William Bonnick, removed to East Main street.

Wilmington, Del.—D. Ross & Son, closing out sale of bicycles advertised.

Los Angeles, Cal.—Jay Bros., 756 South Spring street, succeed Sunset Cycle Co.

NEW STORES.

Preble, N. Y.—W. West, repairing.

West Rutland, Vt.—Clarence Sargeant.

Poland, N. Y.—William Cave, sr., repairing.

BURGLARY.

Buffalo, N. Y.—John F. Smith, 360 Broadway.

FIRE.

Ottawa, Ont.—W. Howe, partially insured.

Finish Counts for Much.

Appearances count for a great deal with the average person, and frequently an article will be praised or damned simply because it looks all right or the contrary. This accounts, in a measure, for the comparative lack of favor which aluminum has met with at the hands of cyclists. The natural finish bears some resemblance to nickel plating, but not enough to be viewed favorably.

With the coming in of motorcycles there is offered to aluminum a field infinitely larger than is afforded by the ordinary cycle. Fly-wheel cases, gasoline tanks, battery boxes and other articles can advantageously be manufactured from the new metal. There is a gain in the matter of weight, while the efficiency of the parts made of aluminum would be equal to those made of other metals. There is no strain on them to speak of, and the softer metal would answer the purpose quite as well.

But the finish is something that should be looked after at the beginning. It is claimed that it can be enamelled almost if not quite as well as tubing, and such a course of treatment would unquestionably add a very great deal to its appearance.

OILERS.

"PERFECT"



25c.

"GEM"



"LEADER"



10c.

"STAR"



We make oilers for almost the entire trade. The quality of our oilers is unequalled.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.

HIGH GRADE

wheels must have the
best equipments.

There is nothing that gives more value for
the money than the use of the

MORSE TWIN ROLLER CHAIN



NOISELESS IN MUD, WATER OR
DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless
Rocker Joints. Insist on having the
Morse Twin Roller. Fits regular
sprockets.

Send for Catalogue and
Trade Price to

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HAND AND FOOT PUMPS,

Oilers, Repair Tools,
Valves, Name-plates, etc.

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Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn.
Depots: 210 Lake St., Chicago.
423 Broome St., New York

FAUBER PERFECTION HANGER.

Unequaled in any of the Points which make
a PERFECT Hanger.
LIGHT, SIMPLE, DURABLE.

W. H. FAUBER, Manufacturer, CHICAGO, U. S. A.

INDIANA CHAIN.

EASIEST RUNNING.
CONSEQUENTLY BEST.



EVERY LINK IS RIGHT.



Send 26 cents for Feb. \$1.80 per dozen.

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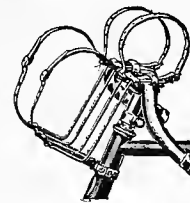
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All Kinds of Metal
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LUGGAGE CARRIERS

The most
serviceable made.

MEQUIER & JONES CO., Portland, Me.



THERE'S REAL COMFORT

IN THE REEVES

Ideal Spring Seat Post.

It relieves all jolts and jars, and converts any
Bicycle, new or old, into a Cushion Frame. Fits
any wheel. Sent prepaid to any address on
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trial if you want it. Send size of present post.
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Reference, Buffalo Commercial Bank.

Dealers send for Circular and Wholesale Price List.



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The Best in
the World.

EXCELSIOR MACHINE CO., BUFFALO, N. Y.

PATEE MOTOR CYCLES, \$200.



No other make of Motor Cycle can maintain a speed anywhere near equal to this wonderful machine. It is light, strong, serviceable and reliable. Will go every time, any time and all the time. No experiment, no plaything, fully guaranteed. Money refunded if not as described. Big trade discount. WRITE US.

PATEE BICYCLE CO., Indianapolis, Ind., U. S. A.

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California in 3 days

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Electric Lighted—Chicago, St. Paul and Minneapolis

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IRISH CYCLIST

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R. J. MECKREDY & SON, Ltd., Proprietors,

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American wheelmen who desire to keep themselves posted upon matters concerning the cycle in Europe, its trade, mechanics, and sport, should subscribe to

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The only recognized authority of English trade and manufacture. Sent post free to any part of America for one year, \$3.25. American manufacturers having novelties in machines or sundries to introduce should advertise in

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Terms on application to

LIFFE SONS & STURMEY, Ltd.,
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Members of the American Trade visiting England are invited to call at THE CYCLIST Office at Coventry or at 3 S. 1. 1. 1. Street, White Circus, London, E. C.

THE BICYCLING WORLD

NEVER LEAK

STOPS LARGE PUNCTURES.

This is the only fluid that can be legally used in pneumatic tires. Suits now pending.

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Buffalo, N. Y.

BOSTON & ALBANY R. R.

N. Y. C. & H. R. R. CO., Lessee.

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(Returning same way.)

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SOUTH FRAMINGHAM	18.70	15.50	11.60
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SPRINGFIELD	15.65	12.75	9.50
WARE	16.75	13.70	10.40
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TEMPLETON	18.00	14.40	10.40
ATHOL	16.90	13.70	10.45
WESTFIELD	15.30	12.50	9.20
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CONDITIONS.

Class A. On sale daily, and good for passage in either direction May 1st to Oct. 28th, final limit Nov. 2d, and in Pullman cars on payment of additional charges for such accommodations.

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OF ALL KINDS ON

BICYCLES AND AUTOMOBILES.

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Our fee returned if we fail. Particulars and our book "How to Secure a Patent" sent free. Patents secured through us are advertised for sale at our expense. Send sketch and description of your invention and we will tell you free whether or not it is patentable.

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Boylston St. and Park Square,

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Public Garden in America.

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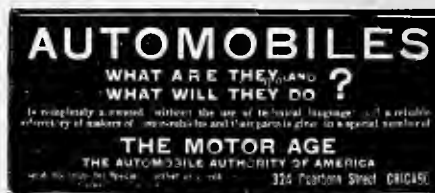
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BOSTON.



The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., July 25, 1901.

No. 17

THOMAS AS TEACHER

Buffalonian Grasps an Opportunity to Spread Motocycle Education—His Plan.

Having blazed the way through the wilderness of Doubt, those tireless and indefatigable pioneers the E. R. Thomas Motor Co. have reached the deeper forest of Ignorance and are hewing right and left with an intelligence and persistence that are letting in floods of light on the matters of care and upkeep of motor bicycles.

While this work is not of a wholly philanthropic nature, it is of a character that aids the interests of all and adds to the already large debt that the motocycle owes the Thomas people.

The fact that they have a notable exhibit of their Auto-Bies at the Pan-American Exposition is generally known, but the missionary and educational work they have actually performed on the Stadium track has not been previously remarked; there they have several of their motor bicycles and a corps of attendants who teach any one and every one who apply. One or more of the machines is always in use, and the number of those who have been taught to ride, and thus been inoculated with the motocycle germ, has already passed the thousand mark and is daily being added to.

In addition to this service, and realizing how great is the need for information on the subject, the E. R. Thomas Co. have grasped the opportunity afforded by the L. A. W. meet, which occurs in Buffalo August 12-18. On each of these days the Thomas Co. will give free lectures and demonstrations at its factory, Broadway and Elm streets, Buffalo, on the use and misuse of air-cooled motors.

A room will be specially fitted up for this purpose, with ample seating capacity. Here will be given practical talks on operation, care and repairs, and demonstrations of the working of the Thomas motor. The latter will be purposely made to get out of order, so that the spectators can see how repairs are made. This will include the various tests required to be made in order to locate the trouble.

Preliminary to the demonstration, visitors will be shown through the works and made

acquainted with the elaborate processes used to produce a first-class motor. The many ingenious jigs and tools required in its manufacture will be exhibited and their purpose described.

In fact, while the details are still to be arranged, the object will be to acquaint all those interested in motocycles with knowledge that would otherwise be acquired by slower and more costly and annoying stages. In doing this it is steadily borne in mind that the better a gasoline motor is understood the less trouble it will give, and the easier it will be put to rights when anything happens to it.

End of the Industrial.

With the purchase last week by Philip A. Williams, Jr., & Co. of some 600 bicycles and a lot of sundries, the affairs of the Industrial Cycle Co., of Springfield, Mass., are wound up.

The Industrial Co. during its seven years' existence manufactured and sold some 40,000 bicycles. The industry was started by the forming of a partnership between D. T. Methven and David Allen Reed, the latter furnishing most of the capital and the former conducting the business. The wheels became quite popular, and the business increased until over 125 men were employed and shipments were made to several foreign countries.

Two and one-half years ago Reed withdrew from the concern, C. C. Abbey, of Chicago, securing his interest. On November 10 last Methven withdrew from the partnership, and Abbey retained the stock. Methven later established another factory at 17 Wilbraham Road, and has continued to manufacture bicycles under the old name of the Industrial wheel.

Reber will Retire.

On August 1 Manager James C. Reber will retire from the management of the Reading plant of the American Bicycle Co. It is understood that he will embark at once in the automobile business, plans for a factory at Wyomissing, a suburb of Reading, being already drawn.

Mr. Reber was one of the pioneers in the bicycle business in Reading. As the head of the Acme Mfg. Co., makers of Stormers and Pennants, he quickly built up a very large trade, and was highly successful. His concern was among those acquired by the A. B. C. when it was formed in 1899,

ASSEMBLERS IN AUSTRALIA

They Practically Dominate the Trade and are Increasing—American Parts Scarce.

Melbourne, June 17.—All kinds of business received a setback for the time being during the recent commonwealth celebrations, which was less wanted in the cycle trade than any other commercial pursuit. There appears to be no buoyancy in the business, and dealers are in the doldrums on account of the winter now upon us.

Imported machines of any description are slow of sale, and I think the demand is lessening, while the bespoke article, assembled from English parts, is on the increase. It has been estimated that fully one-half of the bicycles in this State at least are made of B. S. A. fittings.

There are no chainlesses here, a small demand only for American parts, and no Yankee motors of any description.

Attached Dealer's Goods.

Constable McNerny, of New Haven, Conn., served papers last week in a suit for \$1,000 damages brought by Harmon Haggewald, an amateur bicycle rider, against Geo. H. Collett, the professional cyclist and dealer. The suit is returnable to the next term of the Superior Court, which comes in in New Haven next September. Haggewald claims that while he was practising on the Coliseum track on last Good Friday he was followed from behind by Collett, who was also on a wheel, and that the latter pushed him in such a way as to knock him off from his bicycle and cause him to fall to the inside of the board track. Haggewald says that his collar bone was broken by the fall. Property at Collett's store, in Court street, New Haven, has been attached to secure the suit.

Will Close New York Branch.

On August 15 the New York branch of the Eclipse Mfg. Co., now at 105 Chambers street, will be closed. On and after that date all business will be handled from the factory, at Elmira, N. Y. Manager Harry E. Walker will return to Boston, whence he came to assume charge of the New York branch, and will act as a floating representative of the company.

SEVEN MILLIONS LESS

Dunlop Company Proposes to Reduce its Capital by That Amount.

As has been plainly foreshadowed for some time, a plan of reconstruction for the Dunlop Tire Co. has been decided upon. It has been submitted to the stockholders and other interested, and if the necessary support can be obtained it will be put through.

In formulating the plan the directors have worked along very conservative lines. Two features of it stand out prominently—the reduction of capital, while considerable—from \$20,000,000 to \$13,000,000, in round numbers, this being exclusive of nearly \$3,000,000 debenture bonds issued—still leaves it at a figure that cannot but be regarded as enormous; second, the loss which this reduction of capital involves falls entirely on the holders of the ordinary and deferred shares. The holders of the debenture bonds and the preference stock get out whole.

As there are outstanding 1,000,000 of \$5 8 per cent cumulative ordinary shares and 2,000,000 of \$5 deferred shares, the swallowing of such a bitter pill as a scheme cutting their holdings in half is by no means a sure thing. To put the scheme through, however, the assent of a majority of the ordinary shareholders, and presumably of the deferred also, must be obtained. Whether or not this is practicable the directors of the big monopoly probably know by this time.

As far as the holders of debentures and preference stock are concerned, they have, in the vernacular, no kick coming. They get dollar for dollar in a concern having 30 per cent less capital than the old one, and their security is unimpaired. At this distance it would seem that there would be no veto interposed by them.

At the same time, it seems to the American eye that the whole plan is but a make-shift—so much so that it is scarcely worth while to put it through.

Admitting that \$20,000,000 is too large a capital for even the Dunlop Co. to stagger under, it will scarcely be contended that \$13,000,000 is very much better. Even while the present monopoly is enjoyed, and enormous profits being made, the paying of dividends on the smaller capital is almost if not quite out of the question. When the patents run out, in less than three years, and the concern has its swollen bulk reduced by half or more, the payment of dividends on \$13,000,000 of stock will be even more impossible than it is now on \$20,000,000.

The weakness of the concern's position is fully realized by those responsible for its direction. In urging stockholders to acquiesce in the present scheme they say:

"The arguments showing the necessity for reconstruction were fully dealt with at the general meeting held on May 14 last, but it may be repeated here that it is generally

conceded that reconstruction is highly desirable, if not absolutely necessary, owing to the changed aspect of the cycle trade on which this company depends; the various matters which have affected the monopoly of the company, and the approaching expiration of the company's patents, upon which the company will become a purely manufacturing concern, and subject to ordinary trade competition."

Asks \$3000 for Two Fingers.

Through his attorney, Edward J. Tierney, suit has been entered at Westfield, Mass., against the American Bicycle Co. in the sum of \$3,000 by Frank Porter, in an action of tort, for personal injuries by him sustained. The writ was served on the company on Thursday, and is returnable to the Superior Court in Springfield on the first Monday in August.

Porter was an employe of the company, and his work was on a heavy trip hammer at the time the injury occurred, last April. The mechanism of the hammer was in some way defective, and one day while he was at work upon it the heavy hammer suddenly fell, and, striking his left hand with great force, severed the third and fourth fingers as clean as if done with a carving knife.

The prosecution claims that this could not have happened had the machine not been defective; that Porter had reported its defective condition, and that persons in authority examined the hammer shortly before the accident and directed him to go ahead and use it.

Klaumenbach is Wanted.

A writ of attachment has been obtained in the Supreme Court, Brooklyn, by Frank Iorum & Co., manufacturers of bicycles, against the property of George Klaumenbach, a bicycle dealer at 1,426 Bedford avenue, for \$731.45, in a suit brought on a note for goods sold and delivered. It is alleged that Klaumenbach has not been seen by his business acquaintances since July 12 last, when he is said to have received \$700 from an estate and went away. It is said that he has gone to Germany. Others say he has gone to Mexico.

In the affidavits on which the attachment was obtained it is deposed that the Bedford avenue store of the defendant has been deserted by him, and that clerks have not been paid their salaries for two weeks, and that they have been compelled to sell goods in order that they might get what was coming to them.

Ransom and Fulton go Abroad.

J. B. Ransom, the head of the Kirk-Snell interests at Toledo, sailed last week for a trip abroad. H. H. Fulton, president of the Eclipse Mfg. Co., Elmira, N. Y., is booked to sail next week.

The New Brunswick Tire Co., New Brunswick, N. J., has obtained judgment against the Dreadnaught Tire Co., of New York City, for \$298.

SPROCKETS FROM BLANKS

How the Job can be Done in the Ordinary Repair Shop.

The day has long since passed when repairers, even in remote sections, are compelled to make sprocket wheels to replace worn or broken ones. Such a job was not uncommon a decade ago, but now every shop in the land has its assortment of chain wheels of all sizes and descriptions, or, if it has not, it is known to be an easy matter to get anything wanted in this line without delay.

Occasionally, however, a customer will be satisfied with nothing but a duplicate of the sprocket wheel he has used so long. If he is willing to pay for it, the repairer should be the last man to object. As a rule he has all the necessary appliances ready at hand, and it is only a matter of time and expense to do the work.

This being so, it may be interesting to describe the operation of making an entirely new hub chain wheel from a stamped blank or forging.

First of all, the blank should be properly annealed by heating to a dull red in a forge and cooling slowly in the ashes. Then chuck in the three-jaw chuck and turn it out to the tapping size of the hub thread. In chucking it for this operation care should be taken that there is a through way so that the nose of the tool may pass right through the blank without coming in contact with the chuck jaws.

Now set the lathe change wheels to cut the correct rate of thread, and with a nicely sharpened inside V thread tool cut the thread right through the blank, using the hub as a guide if it is not built into the wheel. If it is, the three-jaw chuck can be unscrewed and the blank still in position "offered" onto the hub. When the thread is correct and a nice fit on the hub, the face of the chain wheel may be turned and the shoulder turned on it. One side of the wheel, including the side and top of the teeth, and the chain flange should be turned up and finished before the work is unchucked.

The next operation is to reverse the wheel, chucking it this time by the flange already turned on its finished side. The unturned side is now finished in a similar way. The outside diameter of the chain wheel is taken from a standard wheel, as also the diameter over the flange. The next operation is to turn a very fine line on the face of the wheel, representing the pitch line.

This may be done by chalking the side of the wheel and marking trial circles with a scribe point held against the rest or the turning tool. Having made a circle with the scribe, lay off on it the required number of inches or half inches with a pair of fine-pointed dividers, and see that the last point coincides with the first. If the last point oversteps the first, a slightly larger pitch circle is wanted. If it falls short, a rather smaller one. This can soon be obtained by a simple process of trial and error.

PRICE-CUTTER'S ARGUMENT

Baited by a Reporter, he Spins Some Tall Yarns—Why no Catalogs.

If an astonishing number of signs, sundries, tires and even complete bicycles used to decorate the front of a store is the up-to-date way of attracting customers to a new establishment, one opened recently in Park Row, this city, should be full to the doors.

Unfortunately—or fortunately, according to the point of view—it has not worked out so in this particular case. Whether it is that the flaming signs, with their announcement of startling prices on everything in the bicycle line, do not carry conviction with them, or the public has cut its eye tooth, is a mooted question. At least the result is the same. The store is almost empty, those who do enter it being apparently led by curiosity instead of a desire to purchase. Consequently the salesmen find that time hangs rather heavy on their hands.

To a Bicycling World man, who played the part of a prospective purchaser, a glib salesman, who lost not a moment in hastening to him, imparted quite a lot of information.

Starting with a machine placed on a stand in the centre of the floor, the salesman stated that it was for sale at the startling figure of \$35. It was a racing machine, having all the latest improvements. Of these, however, he was only able to mention the Fauber crank-hanger construction. The other features he dismissed with a wave of the hand and the remark that everything was of the best. Asked if he had anything cheaper, he pointed to a heterogeneous collection of machines placed in a closely packed row.

"This one is \$24," he said, placing his hand apparently at random. "It is our best roadster, not quite as good as the racer, but almost. The latter, however, is guaranteed for two years."

"Who is the maker?" he was asked at this point.

"Oh, we make them ourselves in our factory, at Philadelphia. At least, we make the frames there. See, they are all made of weldless tubing"—tapping the tubes with a pencil as he spoke.

"Maybe you would like to look at a chainless," he went on, evidently perceiving little encouragement in the face of his auditor. "Let me show you this one."

He pulled a machine out of the row with some difficulty, for they were packed so closely that the pedals and handle bars were interlocked. It was in truth a chainless, but rather a disreputable one—shopworn, as was explained later, this accounting for its low price. This was \$25, it was explained.

"As good as any chainless made," declared the salesman. "No, it's not a bevel gear. It's a Bullis gear—a ball gear, and very fine. The cheapest chainless on the market, and excelled by none. Here's a catalogue of it"—

and he brought out a 1900 catalogue of the Bullis Co.

Was the gear as good as the bevel gear? he was asked, and was it a this year's machine? Was the gear still being made? To all these questions affirmative replies were given. Even the suggestion that the Bullis Co. had gone out of business was received with an unequivocal denial. It was still being made, and this was a 1901 pattern machine with it fitted.

Were any other bicycle manufacturers using this gear? was the next question.

"Yes," was the reply. "The Orient people are fitting it this year (sic.) They used the Sager ball gear last year, but dropped it for this one. It is an improvement over the Sager; just like it, only better."

As a preliminary to breaking away the Bicycling World man asked for a catalogue.

"We don't have any catalogues," was the reply. "We save the money on them and give it to our customers. We build the machines that much better and make no additional charge for them. Can't I interest you in a chain wheel?" was the last desperate effort, as the Bicycling World man made his exit.

Punishment Fits the Crime

Possibly greater watchfulness on the part of owners of bicycles has had something to do with it. At any rate, it is a gratifying fact that the bicycle thief is a much less ubiquitous and numerous individual this season than in seasons past.

Like the horse thief in the West, he has been given short shrift and severe punishment to a degree that would have discouraged criminals in even more lucrative fields of operation. Magistrates throughout the land had united in regarding the bicycle thief as only a little less meaner type of lawbreaker than the light-fingered gentry who make a business of exploring the pockets of the unwary, and have with few exceptions inflicted the full penalty of the law in cases brought before them.

In addition, wheelmen themselves have, within the past two or three years, shown a disposition to deal out justice on their own account when fortunate enough to catch delinquents in the act, and this has still further tended to disgust wheel purloiners with their occupation.

Result of Protecting the Agent.

The correspondence published in the Racycle advertisement in this issue should interest the retail trade not a little. As it testifies to the value of the wheel itself, it demonstrates also how the Racycle policy of "for the legitimate agent every time and any time and under any and every and all circumstances," has won the unwavering faith of their agents. There is nothing of the Jekyll-Hyde in the make-up or in the actions of the Miami Co.

"Motocycles and How to Manage Them"; 126 pages, 41 illustrations; cloth bound. \$1. The Goodman Co., Box 640 New York. ***

CONCERNING CHAINS

Something About Their Construction, Care, Wear and Lubrication—Rocker Joint.

Chains have so well established a place in the mechanical world as a means for transmitting power that it is necessary to say but a few words concerning their scope, says Wheeling.

They are applicable wherever positive speed ratio is to be secured, and wherever power is to be transmitted without sacrificing the flexibility of the shaft supports.

Just as gears may be roughly classed as cut and cast, so chains can be grouped as machine made and cast. The former have been almost solely applied to bicycles and motor cars. Machine-made chains, when properly designed and well made, are stronger, more durable and less noisy than cast chains of equivalent bearing surface and section.

That chains shall run properly with the wheels, it is essential that the links shall be accurate as to pitch, that the pintels shall bear uniformly in their seats, that the wheels shall be of the proper pitch diameter, the teeth of proper pitch and shape, and that the bearing and sprocket surface shall be proportionate to the strains to be transmitted.

The wear on chains is twofold, internal and external. The internal wear is due to the articulation of the links, and takes place between the pintel and its bearing. The external wear is that which is caused by the engagement of the link with the sprocket.

Lubrication of both the chain bearings and the teeth of the wheels should largely reduce both kinds of wear. Every chain, no matter what its duty, should be lubricated at frequent intervals, tests having demonstrated that a chain lasts longer when a mixture of emery and oil is applied to the chain than when the emery alone is applied. The joints should be wiped free from dust and sticky oil, and an effort should be made to get the lubricant into the bearing. Besides this, the teeth of the wheels should be cleaned and a heavy grease applied to them.

But the chain manufacturer realizes that the lubrication of chains is not always an easy matter, and his aim has therefore been to produce a chain joint which would prove durable in spite of imperfect lubrication.

Two general methods have been employed to achieve this result. The first method consists in the use of a rocking joint, which is an application of the knife-edge principle to the chain bearing. This application was the subject of generic patent granted Mr. James M. Dodge, on July 13, 1880. Only a fractional part of a complete revolution is possible with this form of joint, but by limiting the number of teeth of the smallest wheel to be used the arc of articulation can be brought within the practicable limits of the rocking joint.

This joint is practically free from friction even without lubricant; and when the force to be transmitted lies well within the safe limits of the strength of the bearing edge it gives excellent results in practice.

The Morse bicycle chain and the malleable iron rocker-joint chains are examples.

If
You Are
Interested
in
Automobiles



WILL SURELY
INTEREST YOU.

It is published for the information
of the average mortal; no dic-
tionary of mechanical
terms is needed to
understand it.

PUBLISHED EVERY THURSDAY
AT 123-125 TRIBUNE BUILDING,
NEW YORK CITY.

\$2.00 PER YEAR.
10 CENTS PER COPY.

SAMPLE COPY ON APPLICATION.

The Retail Record.
NEW STORES.

Newport, R. I.—Edward W. Watkins.
Cottage City, Mass.—H. E. King.
Cambridge, Mass.—James F. Rooney suc-
ceeds William E. Furniss, 4 Brattle Square.
Manchester, Conn.—C. D. Barrows rented
an addition to his store.
Elmira, N. Y.—Manchester & Becker, 414
East Water street, succeed Ralph M. Frisbie.
Lisbon, N. H.—W. A. Shawney.

CHANGES.

Meriden, Conn.—Arnold & Ives, John F.
Ives sold his interest.

COMFORT

with

SPEED

is the

CUSHION FRAME

Motto.

The CUSHION FRAME is positively
the greatest bicycle invention since
the advent of the pneumatic tire.
It practically increases the resili-
ency of the tire four fold WITHOUT
IN THE LEAST DETRACTING from the
SPEED or POWER of the wheel (as
compared with the so-called
rigid frame). The most enthusi-
astic converts to the Cushion Frame
are the old-time, speedy, "get there"
riders, who at first "scoffed" the
idea of COMFORT being combined
with "speed and power" in a
bicycle.

HYGIENIC WHEEL CO.,

220 Broadway New York.

Owners of the Cushion Frame Patents

Do You Try
to Sell Sundries
or
Do You Merely
Keep Them For Sale?

There's a mighty difference between
the two systems.

The dealer who tries to sell sundries—
who displays, and advertises and "talks
sundries," rarely fails to sell them. While
the buy-cycle season lasts but a few short
months, sundries are always saleable.
Cyclists are forever wanting something
or other. They will want more of it and
want it oftener if they are reminded of
the fact.

The dealer who merely keeps sundries
for sale usually keeps them. Goods of
themselves cannot speak, and the mer-
chant who keeps them in boxes on the
shelf and sells them only as they are
called for, is simply letting desirable prof-
its slip into the purse of his more alert
competitor.

It does not pay to hide lights under a
bushel, nor to keep cycle sundries con-
cealed on a back shelf.

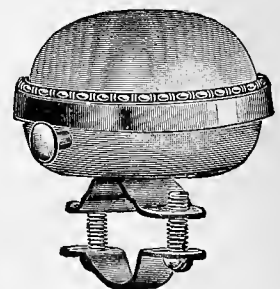
Don't do it!

Keep them so displayed and advertised
that all men (and women) shall see and
know them.

Our catalog No. 73 illustrates a full
line of bells and other useful sundries that
are adding to the income of many deal-
ers and will add to yours if you make the
most of the opportunity they afford.

We will be pleased to mail you a copy.

Why not send for one and "look it
over?"



BEVIN BROS. MFG. CO.,
EAST HAMPTON, CONN.

(Business founded 1832.)

THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should

Address us at P. O. Box 649.

NEW YORK, JULY 25, 1901.

Riders Won't be Fooled.

It is a comfort to reflect that, as the martyred Lincoln said, you can't fool all the people all the time.

That pithy saying is illustrated by the present situation in the trade respecting the sale of machines the sole recommendation of which is their extremely low price.

Formerly such machines sold like the proverbial hot cakes.

All anybody had to do was to acquire in some manner a choice aggregation of machines, the product of concerns that had either halted by the wayside or actually fallen thereon, and advertise them by a generous use of printer's ink.

They would be snapped up as quickly as they could be uncrated and placed on the floor.

But the day of such sales has passed. Nowadays buyers scrutinize such alleged "bargains" closely—too closely for comfort, the vendors think. They ask inconvenient questions and draw unpleasant conclusions.

There are a number of concerns at the

present time working off stocks of passé bicycles, the makers of which have gone out of the business.

In each case their success has been of an extremely limited character. Prices have been marked down again and again, but still the goods will not move.

A few more lessons of this character will teach the concerns in question that it is no longer easy to fool riders.

On Pumping Tires.

From the appearance of the pneumatic tire until the present day tradesmen and others interested have never ceased to sound warnings against the use of tires ridden without sufficient air. Nothing, not even puncture, has caused so much trouble as this. The remedy is at hand and easy to apply. Yet the practice continues, and probably will until the end of the chapter.

There are riders, of course, who go to the opposite extreme. They pump their tires so hard that as far as comfort is concerned they might almost as well be riding solids. They get speed in return, and that compensates them for a very large amount of discomfort.

But it is well to understand that it is best to err, if error of any kind is committed, on the side of having the tires too hard. Too much pumping is infinitely better than too little. The latter hurts the tire, the former only the rider. Yet many riders never will learn the lesson, or, having learned it, they will not heed it.

Why Instalment Sales Grow.

Instalment buying has long since ceased to have attached to it the stigma that once went with it, with the result that to-day people in nearly all classes of society indulge in it at one time or another.

Paying for a purchase on the "instalment plan" has consequently many and wide ramifications. The article purchased may range from a house and lot down to a trifle costing no more than a dollar. Very few things are exempt. A person has but to desire something and it will not be a difficult matter to buy it "piecemeal," as it were.

The purchaser may be perfectly able to pay cash for his purchase, and yet buy it on instalments. But he may have a purpose in view, and as it is served by this method he is quite satisfied.

We have known parents to purchase bicycles for their sons in this manner, and make the latter meet the instalments out of their weekly or monthly allowances. Or

they have bought for their own use in the same manner, arguing that monthly payments are less felt than a lump sum would have been.

On the other hand, sellers not infrequently make special inducements to people who buy on instalments.

They name a price quite as good as that for cash purchases, and thus almost force the buyer to pay in instalments. If he gains nothing by paying all at once he is more likely to take advantage of the time offer, even though there is nothing whatever gained by it.

For these and other reasons the practice continues to grow. Especially is this true of luxuries—expensive ones more so than all.

With bicycles, reduced prices have had a great deal to do with keeping down the proportion of instalment sales. Notwithstanding this, there is still and always will be a very considerable amount of business transacted in this way.

Want Modern Goods.

For a bad year, and one marked by slow selling of "job lots," this class of bicycle is being sought with unusual avidity.

Perhaps it is largely due to the fact that it is practically impossible to buy modern goods at the prices the cut-rate houses are willing to pay.

Scour the country as they will, the manager of one such concern told us, they cannot find up-to-date machines. If such were procurable good prices would be cheerfully paid for them; not market prices, of course, but good by comparison with those ruling during the past few seasons.

The way of the price cutter and job lotter is made harder than ever by the confessed disinclination of buyers to take machines of an archaic type. They want something that is not so evidently passé, and they do not hesitate to say so.

Rather than pay \$10, say, for a machine with pinch bolt fastening, outside joints or similar antiquities, they will ask for something \$5 and even \$10 higher.

To have customers of this sort and not be able to supply their wants is disheartening, it must be confessed.

As it is, the concerns referred to are obliged to buy stuff four and five years old and offer it to their trade. Low as are the prices paid for such machines, those obtainable are so little better that the profit is almost a negligible quantity.

The legitimate dealer, however, can well afford to sit back and smile.

Reconstruction is Necessary.

It is not easy to appreciate the position and power of that big British monopoly, the Dunlop Tire Co.

To say that it completely dominates the tire trade of the United Kingdom is to state the matter very feebly and inadequately. With two or three concerns—and these not very prominent ones—excepted—it is the tire trade. The dozen or more subsidiary companies which work under license from it are its creatures in every sense of the word. They exist merely because the parent company considers it good policy to permit the trade and public to obtain some relief from the rigors of its oppressive rule. They really play the part of safety valves, through which some of the popular indignation against the monopoly is dissipated.

This being so, the future of the concern is a matter of vital importance to the British trade and public, as well as of interest to the trade in this country.

The reconstruction plan prepared by the Dunlop Co.'s directors and referred to in another column, is, as is tacitly admitted, a necessary measure. To scale down the enormous and entirely unwarranted capital of the concern is a duty, disagreeable it is true, but demanded by the most ordinary prudence.

The measure offered for approval has been framed with extraordinary skill. There is something in it to appeal to each of the four classes of security holders concerned.

To the debenture bond and preferred stockholders a transfer of securities to a new and better company is offered. The ordinary shareholders have their holdings cut in half, but a very substantial sop is thrown to them in the shape of some \$700,000 of surplus. This should go some way toward compensating them for the cutting down of their problematical dividends.

As for the deferred stockholders, they have a slightly better chance of getting dividends on the reduced capital than under present conditions. At best, however, they have little hope of getting anything.

It will be interesting to know what reception the plan will meet with.

Juveniles May Jump.

When the king takes snuff his loyal subjects prepare to sneeze.

Close on the heels of the announcement that Edward VII had purchased a juvenile bicycle and presented it to his grandchild, the heir presumptive, comes the news that

the Marquis of Salisbury has followed his august example. In the Marquis's case the happy recipient is a nephew, and a juvenile Beeston Humber was the machine selected.

As the Marquis of Salisbury is unquestionably the first subject in the realm, it can scarcely appear otherwise than the proper thing for other subjects—the nobility, the gentry and the commonalty—to go and do likewise. As the British youngster has never been especially favored in respect to bicycles, he will doubtless appreciate at its true worth the treat that is in store for him.

The practice—inaugurated under such happy auspices—may extend and become general. Should it do so, however, it will shortly become a matter of concern where a sufficient number of such machines are to come from.

Neither in number nor quality were British juveniles especially noteworthy, being thereby in marked contrast to those turned out of American factories.

Perhaps there is an opening here for American juveniles. Who knows?

The Dealer's Opportunity.

Opportunity makes the man, it is said, and there is considerable truth in the adage.

There is another side of the matter, however, that is too frequently overlooked. This is that the man should be ready to seize the opportunity whenever it gets within seizing distance.

There can be little doubt that the trade's opportunity is the motor bicycle. It will not come this year, or perhaps even next; but, for the matter of that, it took the regulation bicycle nearly two decades to attain its maturity. We can afford, therefore, to give the motor bicycle even as much as half a dozen years.

But the handwriting on the wall is becoming visible to everyone. The motor bicycle is a "comer." People are talking about it, watching it and mentally calculating when they will take it up.

Here is the dealer's opportunity. Let him take the lead in the movement, as he did in the regretted days of old. Who but he should know all about the motor, its working, its strong and weak points, its ease of repair when one has the "know how?"

To acquire this information should be the first thought of every dealer who looks to the future.

The rush season is drawing to a close; at least the worst is over, and there is time to take up such matters as this.

There are many ways of pursuing studies of this character. The best is to invest in a motor bicycle and learn it from A to Izard. There is no teacher like Dame Experience.

Another way, and one that comes at a most opportune time, is offered by the E. R. Thomas Motor Co., Buffalo, N. Y., and described elsewhere.

Their "School of Motor Research," as it could aptly be termed, is open to every dealer or person interested in motors. The location and the time are ideal. The combination of pleasure with business, of a trip to the Pan-American Exposition with a practical study of the motorcycle, is one that few dealers can afford to overlook.

While Germany is supposed to be showing its teeth at all things American, a leading Berlin newspaper, the *Lokal-Anzeiger*, pays a handsome compliment, for the first time, to the United States. It says that in Germany the old notion about unfair sharpness in American traders and manufacturers is rapidly disappearing, and that German merchants prefer an American connection to that of any other country, because the Americans are more honest and more honorable.

Repair of Mail-order Bicycles.

Mr. Cunningham's urging, printed in another column, that dealers and repairmen refuse to repair mail order bicycles is an admirable one—the more admirable because Cunningham practices what he preaches.

We fear, however, that the average repairman lacks the Cunningham strength of backbone, and in his anxiety to get any kind of work at any kind of price, will make no distinctions.

It might be an effective and even happier plan did the dealers, repairers and their organizations agree to repair mail order bicycles only at double the usual rates and to give all the publicity possible to the announcement.

If, as the old saw asserts, straws show which way the wind blows, it is encouraging to know that a Brockton (Mass.) shoe concern which makes a specialty of bicycle shoes has had many more orders for them this year than last.

These are the days when the most may be made of coaster-brakes and motor bicycles. As a means of avoiding perspiration and of "cooling the heated brow," those two inventions afford room for some telling circulariz-

FAST GAINING FAVOR

**Motor Bicycles are "Catching on" Abroad
—Remedy for Misfiring—Tire Tricks.**

London, July 9.—The steady progress which the motor bicycle is making in popular favor is really remarkable. Since dry roads became the general order of things the motor two-wheeler has greatly increased in numbers. The reason is obviously due to the comparative cheapness of the motor bicycle, which enables the would-be motorist to obtain a certain amount of experience in motor matters at a low cost. Three months ago the rider of a motor bicycle was such an uncommon sight that people turned round to look at him, but now he passes by without causing comment. Even the ladies are showing an inclination to take to the motorcycle, and preferably the two-wheeler.

According to the stand taken by the press generally, it would seem that motor racing will not be received with much favor in future, owing to the sad accident to Platt-Betts. This unfortunate occurrence was brought about solely by the motor of the racing machine missing fire while travelling at a speed of forty miles an hour. The sudden check caused the record-breaker to collide with the back wheel, and, of course, he came to grief in consequence.

This missing fire is one of the worst features of the motorcycle, and yet is one of the most simple to remedy. In the first place, two tremblers and two contact screws must be employed, and each trembler must be actuated by a separate cam. The notches of these cams should be placed nearly a quarter of an inch one in advance of the other. By this means the springs will drop into the notches one after the other, and if the first one fails to cause a spark the second is practically certain to do so. I have used this arrangement on cars and tricycles with the greatest success, and have never had a misfire except when the accumulators have run down or the carburetter has been at fault. It is a very simple alteration, and yet the makers will not adopt the plan. Unfortunately it is not patentable, or I should take the necessary steps, and, after winning all the motorcycle races, would float a company and die a millionaire. But something intervenes in the fact that other people have before used double ignitions, though not quite in the same manner.

It is a curious fact that the driving tire of a motor bicycle should so speedily show signs of wear, if the front wheel drives, while if the power be applied to the rear wheel the driving tire seems to last all right. The front tire of my Werner bicycle is getting fearfully chafed—this best describes the roughness which is apparent upon the tread—while on a Minerva bicycle which I have been trying the driving tire, one of exactly the same make and size, seems to stand bet-

ter. It may be that the uneven action of the front driver has something to do with the matter, although I endeavor to check this as much as possible by keeping the steering socket properly adjusted. The ball races of this part should, however, be much stronger than at present, in order to resist the unequal strains to which they are exposed by the constant and somewhat jerky pulling of the front wheel. It seems to me that the use of larger balls would improve matters not a little.

F. J. Osmond seems to be more and more in love with the motor bicycle, and is frequently to be seen speeding along the Great North Road at a pace which even he could not equal in the best of his racing days. He now divides his attention between the Werner and a Locomobile steam car, but the speed of the former has a charm for the ex-champion, which is easily understood.

Refuses to Repair Them.

Editor of The Bicycling World: I have read with a great deal of interest the letters from your correspondents giving their plans for knocking out the mail order bicycles and I have been wondering whether any of them ever thought of refusing to repair them, as a good way to do it. Last summer I worked overtime on that kind of work till I broke down in health, but this season I have refused all jobs on which there was a possibility of having to earn twice as much as I would get for it.

I cannot see why any dealer or repairman who is not guilty of putting such trash on the market should be obliged to worry himself greyheaded over such jobs to accommodate the "suckers."

CHARLES CUNNINGHAM,
Youngstown, Pa.

Longevity of Bicycles.

A well built and well designed cycle should last almost for an indefinite period.

Outside of the chain and tires there are few parts to wear out, and even if this were not so replacement is usually a very simple matter. Bearings will run year after year without perceptible wear if they are made right. Saddles will need renewing after a half dozen years' use, and perhaps the pedal plates may be worn through and require replacement. But outside of these a rider need not bother himself about the machine. If it suits him, and is modern in design, he may continue to ride it with entire satisfaction.

This is hard on the trade, of course, and it may be said that not all machines now in use are of the enduring kind referred to. Besides, the three C's of cycling—the coaster-brake, cushion frame and chainless—hold out allurements which many riders succumb to.

Heretofore it has not been easy to get prompt deliveries of one-inch flush joints frame fittings. Now, however, the Crosby Co., of Buffalo, are so situated that they can fill all orders of the sort immediately on receipt.

DRILLING OF RIMS

The Important Part it Plays in Wheel Building—As to Motorcycle Wheels.

The great improvement that has taken place in the last half dozen years in the science of wheel building has been due to a number of causes.

Among these may be mentioned better spokes and rims, but, above all, a better method of rim drilling. Indeed, many well-posted men place the latter first. They assert that more trouble resulted from improper drilling than from all other causes combined.

An English writer, in Bicycling News, touches on this very important matter.

"The reason commonly assigned for the failure of wood rims in this country," he says, "viz., that of warping and splitting through climatic influences, could hardly be reconciled with the fact that wood rims are perfectly successful in countries where there is more wet than here, when the wet season has set in, and where at other times there is greater dryness than we have to put up with.

"The principal causes of trouble with wood rims built in England come from improper drilling: the wheel maker drills the alternate holes to the right and to the left, because he has always done so from the time of the direct spoke on; but he carefully neglects the variations of the driving and the complementary spokes of tangent construction, either because it never strikes him or because he does not care to watch the four different angular sets of holes required; in a wood rim, owing to the thickness of the material, the result of this indifference naturally results in wrong alignment, bad tension, with consequent lateral distortion, a complete upsetting of the grain of the wood, and final splitting, sometimes along the spoke holes, sometimes in other places.

"The Americans, who introduced the wood rim, have exercised more thought on the subject, and the better firms at least have their rims drilled correctly. We can hardly say we were surprised to see a Yankee drilling machine in an English cycle factory which had a special arrangement for drilling to four angles, but which was being used without this quality being utilized or even having been found out.

"Now, too, that a great many hubs are in use in which the free-wheel and brake mechanism are combined and a larger flange used on one side, the importance of drilling rims correctly becomes of greater moment than ever. We recently saw a machine—we are glad to say of foreign build—fitted with a hub of this description in which the bend in the spokes going to the larger flange was quite visible at a distance of several yards.

"In motorcycle wheels, where the difference between the inner diameter of the rim and the diameter of the hub is far less than obtains on ordinary cycles, and where, further, the gauge of the rims is greater, bad drilling is more noticeable, though the increased weight of the spokes and the increased distance from the centre of the wheels at the cross ties pardon the usual sin to a large extent."

RACING

Of the three or four men who can with any show of reason lay claim to being in the same class with Elkes, two—Michael and Nelson—plainly had their claims put to flight on Saturday last. At Manhattan Beach, in a widely heralded race at 40 miles, the three men met, but no real contest resulted. Nelson rode like a third or fourth rater, and Michael, while fighting gamely to make a showing, succeeded only moderately well. When it is said that Elkes rode phenomenally all is said. He covered the 40 miles without a skip, never even changing pacing machines, and never after the first mile was the result in doubt. He rode with spirit, and was to all appearances good for still faster work. Michael struggled hard, but was lapped twice, while Nelson was 3 miles to the bad when he was called off by the referee. Motor troubles were agreeably lacking. Walter Smith easily defeated Van Cott at one mile, motor paced, while Bleeker won an Australian pursuit race. He had to ride nearly ten miles, however, before he caught King.

New Haven's National Circuit race, run on Tuesday night, was anything but uneventful. Three nasty spills marked the riding, while McFarland was attacked by colic and prevented from participating. In each of the three spills Collett took a prominent part. At one time Collett and Fenn came together, the latter falling and bruising his shoulder, while, to complete the matter, Collett's machine broke in another heat and Kramer crashed into him, falling and wrenching his knee and shoulder. The mile championship finish is in dispute, Collett being disqualified for fouling on appeals of Kramer and Wilson, and the matter will go to the N. C. A. Board of Control. In the half-mile professional handicap Fenn continued his winning streak by getting over the tape first, while Downing won the mile 2.10 class.

In his home town, New Haven, Conn., on July 16, Collett nearly precipitated a riot by riding amuck and sending two men to the hospital. The trouble arose in the mile championship race. In his heat Collett is alleged to have thrown Kramer, as a result of which the latter was laid up for a week and was at first thought to be seriously injured. In the final Collett treated Wilson in the same manner. He was disqualified by the referee. A few days later the N. C. A. Board of Control passed on the matter. It decided that Collett was not entitled to any place, money or points in this championship, and he will also stand suspended until August 1. In case Collett prefers to pay a fine rather than take the enforced vacation the figure has been placed at \$75.

Although the stars of the sprint race world were absent, the day's sport at Vailsburg, N. J., was not wanting in excitement and interest on July 21. Gascoyne scored his first

win at the track by capturing the half-mile open, John Bedell, who turned professional for the day's pickings, getting second. In the 5-mile pursuit race with Fenn, however, the Englishman underwent a sudden and surprising reversal of form, the Connecticut boy making a show of him. Gascoyne was overhauled at 3 miles 495 yards. Rutz surprised everybody but himself by capturing the 5-mile handicap. Hurley was the winning amateur, as usual, getting both races.

Even Nelson, who two days previous, at Manhattan Beach, had been made to look like a third rater, was able to lower the colors of "Major" Taylor. The feat was accomplished at Worcester, Mass., on July 22, when the two met in a 5-mile motor-paced heat race, best two in three. The Swede won in straight heats without difficulty, in 8.10 and 7.41 1-5 respectively. Taylor, however, lost count of the number of laps ridden in the first heat.

That his win over the same opponent the day before was no fluke was demonstrated by Fenn at Hartford on July 22. He defeated Gascoyne for the second time in a 5-mile pursuit race, catching the Englishman in 2 miles and 2 laps. The result was foreshadowed almost from the beginning, as Fenn gained steadily. The 10-mile open race had just been started when the rain, which had been threatening all the evening, came down and compelled a postponement.

A victory in the half-mile championship was the result of "Major" Taylor's first appearance in competition since his return from France. This took place at the National Circuit races at Springfield, Mass., on July 18. The final of this race was a loaf, and Taylor had little trouble in beating Fenn on the sprint, with Cooper third. Gascoyne won the two-mile handicap, while Jacobson accounted for the mile 2.10 class.

It is said that "Major" Taylor will, following the Pan-American championships to be held at Buffalo during the week beginning August 12, finish the circuit and then journey to Paris again. The colored lad has received offers from Des Cranges, the owner of the Parc des Princes, to compete there in the fall, and later to go to Buenos Ayres, South America, where the French track manager will conduct cycle races.

Champion continues his winning streak, defeating Nelson at Washington, D. C., on July 19. The race was 20 miles, motor paced, and the Frenchman was just a lap in the lead when the finish came. Time, 32.26. Nelson had a little trouble at the start with his pace, losing a lap thereby. Mile after mile he struggled to regain it, but was unable to shake Champion from his rear wheel.

Rain spoiled a motor-paced race between Champion and McEachern at Hartford, Conn., on July 22. Three laps had been ridden when the rain came down.

Both "Major" Taylor and Cooper went down before Gascoyne at Revere Beach, Boston, on July 20, in the one-mile championship. The Englishman rode in dashing style and proved a surprise party to his opponents. A 25-mile professional race was the other feature of the day. Freeman won it, with Newhouse second and Downing third. Time, 1.03.22 4-5.

Walthour was never in the running when he met Stinson at Providence, R. I., on July 17, in a 25-mile motor-paced race. The Cambridge lad almost made a practice spin of it, never departing from the even tenor of his way, and winning by almost a mile. Time, 39.15 2-5.

At Hartford, Conn., on July 15, Fisher administered a defeat to his whilom team mate, Kramer. It was in the half-mile championship race, and the two men had it out on the straight, Fisher finally winning by a foot. Jacobson won both the mile handicap and the mile 2.10 class.

Ross first, Caldwell second, was the order of finish in a 20-mile motor-paced race at Brockton, Mass., on July 15. Ross led all the way, leading by half a mile at the finish. Time, 32.09.

Heavy rains, which lasted until evening, making the track slippery, were responsible for the postment of the races at Manhattan Beach on July 17.

Gains Confidence, Then Robs.

Buffalo (N. Y.) dealers are suffering severely through the work of clever bicycle thieves. Several complaints have been made to the police of the manner in which they are being defrauded. The game is to go to a store, rent a wheel, give a deposit and return an hour or so later with the machine. In a day or two the operator goes again and repeats the process. Then he goes a third time, tells the dealer he ought to be trusted and takes out still another wheel. This time he fails to return with the machine.

It is said that half a dozen dealers have lost wheels through the operations of this swindler. The police are looking for him.

Motorcyclist's Tall Task.

To most people successive daily jaunts of 250 to 275 miles will seem to be rather a big undertaking, even when the vehicle used is a motor bicycle. Yet such is the task set for himself by an Arlington (N. J.) rider who starts shortly for the Buffalo exposition. He expects to make the journey in two days. It will be interesting to know just how far short of this schedule he will fall.

Spring Frame of British Make.

A spring-frame bicycle has been brought out by the famous Birmingham Small Arms Co. Three coiled springs are used, one in the top frame tube, just in front of the saddle post tube. The other two are contained in the upper rear forks, all three working in conjunction with telescopic joints. The machine is said to have undergone exhaustive tests and to have given good results.

WHY THE TROLLEY WON

One Man's Argument to Show That the Street Car's "Victory" Affected Trade.

There is nothing particularly novel in the claim put forth that it is the trolley car that has killed pleasure bicycling. It has been asserted over and over again, and supported with more or less cogent reasons. There is little doubt that bicycle riding has been hurt by the great growth and improvement of the trolley car system. If the word "hurt" were substituted for "killed" there would probably be little disputation of the claim.

A tradesman of many years' experience talked to the *Bicycling World* man a short time ago on this subject. He rang the changes on the old assertion, and he made out a much better case than usual. For that reason his conversation is worth repeating.

"When we had our first fight with the trolley," he said, "back some half a dozen years ago, we came out victors. But when we thought, as we did then, that the matter was settled we reckoned without our host. The trolley got its second wind and came at us again; and we might as well admit that it got the best of us.

"All the world loves novelty. People want something new, and are always on the lookout for it. When the general public really got interested in bicycles—infected with them, as some will say—the matter developed into a craze. The whole country went cycling mad, and for a while the long comparatively neglected two-wheeler swept everything before it. The thing had to run its course, and to-day we see the result.

"Well, it was just when the preparatory stages of the craze were being gone through that the trolley commenced to cut a figure. At first it was simply a motive power that took the place of horses and mules for hauling city people between their offices and homes. This stage reached, it was seen that it had possibilities much beyond this. It began to reach out into the suburbs, then into the open country.

"In doing this it came into conflict with the bicycle. The latter was a pleasure vehicle also, and it enabled people to go where they pleased, to traverse distances possible in no other way. But the trolley did this, too, in a measure. It had not reached its full development, however, and it was pitted against the bicycle when the latter was approaching the period of its greatest strength. The result was not long in doubt. The bicycle went its way, its progress impeded little if any by the trolley car's advance.

"But in the course of time the bicycle reached its pinnacle and began to decline. As a craze it met the inevitable fate of all crazes. Even enthusiasm waned for a time, and thousands of ardent devotees of the sport forsook it, temporarily or permanently. Had it not won for itself a place in the

world's economy, being, as it was, unapproached as a means of business transportation, it would almost have met the fate of the roller skate. But it was not to fall so low.

"To this decline the trolley contributed materially—far more than is generally supposed. Business and pleasure went hand in hand in the development of the trolley system, just as they had gone with that of the bicycle. The lines of trolleys were multiplied and extended, and the operating methods were vastly improved.

"As a bidder for popular favor the trolley car possessed some advantages over the bicycle. Much that an ordinary rider could accomplish on the latter he could duplicate on the former. He could go almost as far and with very much more comfort—certainly without exertion. From a seat in a trolley car a more leisurely view of the surrounding country could be obtained. There was all the delight of swift motion, without exertion and without the accompanying perspiration so noticeable when cycling on a warm day or evening.

"Above all, trolley riding was new, or comparatively new, while cycling had ceased to be a novelty. That, more than everything else, was responsible for the trolley's victory. There was a zest in trolley riding. It gave people a new sensation, afforded them something new to talk about. It is small wonder that they fell easy victims to its seductiveness.

"But it is doubtful if a bicycle rider ever sat in a trolley car and watched a cyclist go by without experiencing a feeling of envy or a desire to emulate him. There might be reasons why he chose the trolley in preference to the bicycle; it might be because he did not want to get heated in reaching his destination, or because it was felt that the bicycle would be a nuisance at the end of the journey, or because the others in the party expressed a preference for the trolley, or simply because it was a change. In any case, the sight of a good rider, bowling gracefully and rapidly along, is always sufficient to cause a regret that the bicycle instead of the trolley had not been chosen.

"As to the future, let me make a prediction: When the trolley has become an old story it, too, will suffer a decline in popularity. It will still be used, of course. On an intolerably hot night, for example, nothing can surpass it as an escape from the stifling city and one's disagreeable thoughts. As a way of getting about, too, its place cannot be filled. It is certain to fill a want even more completely in the future than it does now.

"But trolley riding as it is frequently practised now is certain to pall sooner or later. People take trolley rides to anywhere, just as they used to take bicycle rides, without aim, just for the delight of riding. But they won't always do this with trolleys, any more than they did with bicycles.

"Then, too, old cyclists are certain to eventually feel that something is taken out of their lives with the abstention from riding. The desire to take up the sport again will be felt, and in that way cycling will sometime be benefited even more than it has been in the past."

AS OTHERS SEE US

An Englishman Carries Home Some American Impressions and Unreels Them.

If Americans are really as anxious to see themselves "as others see" them as is charged, a good opportunity is afforded by an item in the current *Cyclist*. A writer in that paper who happened to be at Henley during the recent regatta made it his business to go around among the Americans present and induce them to talk on various subjects, cycling being naturally the one in which he was most interested. Some weird impressions were received by him in consequence.

"I was rather surprised," he says, "to find that cycling is not held in high repute among the wealthier Americans. It is considered *infra dig.* by 'smart people' to cycle in public. During the boom young America went mad on it, just as our people did, but now the case is altered.

"As for the sport, it is entirely in the hands of the trade, but my informants cannot understand, in the present state of the pastime, how it can pay firms to maintain a racing staff. Among a certain section of society racing is very popular, but, excepting at New York and a few other big towns, the people do not get any chance of being satiated with it. There is the 'circuit,' as it is called, a sequence of meetings at which the best men of the day race in turn, which pays well, and enables the more successful riders to rake in much 'ooof.'

"But my friends tell me that the amateur is practically non-existent, and the sport is not fostered more than is the case here at the chief universities and schools.

"Strange to say, they did not seem at all proud of 'Major' Taylor, but rather the reverse. They seemed to resent the fact that a 'nigger boy,' as they termed him, had proved the fastest rider in the world, and had been feted and lionized over here in Europe just as if he had been a white man. Yet Taylor is as much an American citizen as themselves, but the fact that he is a colored man seems to outweigh every good quality he may possess."

How to Case Harden and Color.

Wherever there is interest in the matters of case-hardening, coloring and annealing metal, the little book on the subject issued by the Rogers & Hubbard Co., Middletown, Conn., will prove of no little value; indeed, "The American Machinist" asserts that "no one can afford to do without the book," and as it is sent free to all who ask for it, Rogers & Hubbard should be kept busy supplying the demand. The advertising of their products occupies but a small portion of the publication; the remainder of it is devoted to full and simple descriptions of the exact processes to be employed in obtaining the desired effects.

How to Gain Space.

Where space is limited, as is the case in most repair shops, the disposal of the machines brought in for repairs becomes a serious matter.

Many plans have been tried, ranging all the way from elaborate stands, arranged in precise fashion, to the primitive method of piling them in a row or rows, one machine leaning against another. It is scarcely necessary to say that the latter method has little to commend it, while the former is better adapted to the showroom than the shop, besides being rather more expensive than the circumstances require.

Where the space is so limited that all other considerations must bow before it, the plan of piling the machines together has ample justification. But so much time is consumed in extracting from the pile the particular machine wanted that on the score of expense it is a bad loser. Machines are frequently damaged when jumbled together in this fashion, and altogether it is a most unsatisfactory way; only the absolute impossibility of stowing the machines in any other manner can excuse it.

If this difficulty can be got over, about the best way, to say nothing of its cheapness, is to put up a row of stands against the wall. Erect a gallery of struts, in twos, two inches apart, and eighteen to twenty inches between each pair, running a three-

inch board along the bottom and another at the top, and there you have as good a stand as can be devised.

It is always in place and ready to receive another machine. The latter is easily put in or taken out, and it cannot possibly become injured by coming in contact with other machines. It will last forever if taken care of, and the expense incurred in setting it up is trifling.

For Ease in Turning.

Most riders have noticed that when they make a sharp turn the handle bar will come in contact with their knees. This happens, of course, only just after the pedal has begun to descend, the knee being then at its highest and most forward position. Unless the front part of the frame is unusually long or the handle bar higher than usual, this will nearly always happen.

To do away with such an occurrence, an Italian concern, the Carloni Brake Co., of Milan, has brought out a new device. The inventor terms it a "virage multipliant," or geared steering head.

The handle bar stem is clipped in an auxiliary head attached in front of the usual head of the machine, the two being connected by a short piece of cycle chain. The transmission device being slightly geared up, it will readily be seen that any movement given to the handle bar is multiplied on the front wheel.

Kallajian Tries his Hand.

Convertible bicycles—convertible from diamond to drop frame, and vice versa—are anything but new. They were talked of, designed, built and ridden in the very early days of the safety, and the verdict rendered on them was no uncertain one. It need scarcely be said that it was an adverse one.

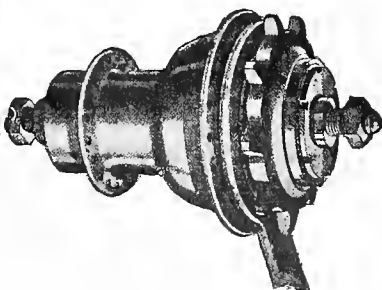
Undeterred—or perhaps unmindful of this disfavor—a Boston man, Lazarus S. Kallajian, has invented a convertible bicycle frame. It has novelty in its favor, it must be admitted.

Used for a rider of the fair sex, the machine is of the conventional type, except that the tubes running from the seat post tube are straight. They run to the upper and lower head, respectively, as usual. When the machine is to be used by a man the frame is turned upside down to bring about the desired result.

The seat and handle bars are removed in effecting the change, when the front fork is slipped out and the frame tilted over the other side up. The crank hanger is attached by means of a strong clamp, and is easily set in either position, the connection between the front and rear sprockets being made without altering the length of the chain for either position. The seat and handle bar being replaced at what is now the top of the frame, the rider is ready to take a spin.

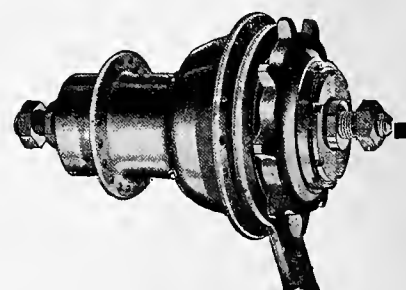
How Many UN-MORROWIZED BICYCLES are There in Your Town?

As a matter of fact there is no good reason why every bicycle should not be fitted with a Morrow. Those that remain un-Morrowized constitute evidence that there is work for you to do—work that will add to your profits and to the pleasure of the rider. "Go after" them.



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HAND GEARS

Here's a Rider who Still Holds Them to be a Great Help.

Is there any advantage to be obtained by fitting a hand gear to a bicycle? Can a rider assist in the propulsion of his machine by using his hands, or does such action simply take a certain amount of efficiency from his pedalling?

These are questions that have been debated at different times in the cycle's history, but always without any really satisfactory conclusion being arrived at. Auxiliary gears have been made and fitted, but the experiments have never been exhaustive or even sufficiently so to base approximate conclusions on them. The matter is still almost as unsettled as it was in the beginning.

Considerable light is thrown on the subject by a letter in a recent *Cyclist* detailing the experience of a rider who has been using a machine having a hand gear fitted to it. In this case the gear consists, roughly, of a pair of cranks, with hand grips, used in place of the usual handle bar. By turning these power is transmitted to the front wheel through gearing and the propulsion of the machine assisted. This gear came into prominence on the other side through some creditable rides made on a machine fitted with it. Consequently it has made more progress than usually falls to the lot of such devices.

"The management is soon mastered," says this writer, "but it is a considerable time before any good results are apparent.

"After a time, however, I think there is no doubt that a slight advantage is discernible, especially up long and gradual gradients, and against the wind; and I have done one or two fast journeys (for me) on it, though I had no opportunity of properly testing it over the seven and a half miles which I generally use for trials of that kind, the particular road in question having been in very bad condition.

"With regard to hill climbing, I thought at first that on a very steep gradient, on which the pull on the handle bar is used to the utmost, the gear would be a disadvantage, owing to the necessity of only pulling with one hand at a time, or else retarding the machine; but in practice I found I could ride any hill that I was accustomed to ride without it, and I think with at least as much ease.

"I now come to its drawbacks, among which are the constant noise it makes, which no amount of lubricant will stop for more than a few miles at the start, and the liability of the cog wheels to become clogged with dirt. The exposed position of the bottom attachment of the driving rod to the bevel-gear wheel also causes trouble, especially in the event of rain or snow, which easily penetrates to the interior of the bearing, and though the movement of the arms cannot be described as trying, yet it was with a strange feeling of comfort and secu-

rity that I rode my machine again after replacing the fixed handle bar.

"To sum up as well as I am able, my opinion is that for a long road race the gear would be a distinct advantage, especially if the rider were strong in the arms (which I am not), but that for ordinary riding the disadvantages fully balanced the gain, although, no doubt, some riders would be much better suited by it than others."

Condensed Milk and Porosity.

Porosity as developed in tires has this in common with hydrophobia—that there are intelligent people who say that no such thing exists.

It is true that there has been a vast amount of porosity. It is a favorite practice of a repairman—so some riders assert—to charge porosity when at his wits' end to assign any other cause for an obstinate tire's leaking. Porosity is a thing for which neither



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the owner nor the repairman can be blamed, and it is comforting, at least, to throw the responsibility on the manufacturer.

However, whether or not this dread enemy of the pneumatic tire really exists, it is at least supposed to do so; and this is pretty nearly the same thing. Consequently, methods of curing it are nearly always listened to with respect.

One rider gives this as a sure cure for the disease, at least as affecting inner tubes:

"Take some best sweetened condensed milk, mix with warm water to the consistency of good cream and squirt about three teaspoonfuls through the body of the valve."

He says that he has given this method a three years' trial on some very bad cases, and he is more than satisfied. It not only effects a certain cure for porosity, but it seems to restore perished elasticity and to greatly prolong the life of a tube. It has another advantage, in that if a puncture happens on the road it is generally to be detected very readily by passing the tube through the hands, when a small white spot will appear at the hole, however minute.

SPOKE BREAKAGES

One of the Troubles That has Been Minimized—Remedies in Case of Accident.

Few riders realize, or remember, what a wonderful thing it is to be almost entirely relieved of the spoke breakages and similar wheel troubles so prevalent until within the last half dozen years.

Nowadays a spoke in a machine of reputable make seldom breaks. If it does it is usually the result of an accident. Neither are the wheels any longer in the habit of getting out of "true" and needing to be gone over at every whipstitch. There are plenty of machines that go through one season after another without the faintest sign of trouble with the spokes or wheels.

Touching on this subject, an Irish contemporary speaks in a strain that is strongly reminiscent of the times referred to—when wheels were not proof against trouble.

"A broken spoke," it says, "is apt to be a source of trouble to the tourist, and the delay in getting it replaced is sometimes vexatious, to say the least of it. Any cyclist would be able to effect this little repair himself with more or less success. A few spokes for both back and front wheels can easily be carried in the seat tube, a cork being put in to prevent them falling down to the bracket. Nipples and washers suitable for the rims should be fitted to the spokes. A suitable nipple key would, of course, have to be carried. This could be procured from any first-class repairer, together with the spokes, etc., cut to length and screwed.

"Here is the way to set about the job: Take out a suitable spoke, turn the machine upside down and deflate the tire. Push the tire and tape on one side, and take out the old nipples and remove the spoke from the flange of the hub, noting how it is interlaced with the other spokes. Put in the new spoke, and the nipple into the rim, screw down the nipple on the spoke until there is a slight tension on it. Revolve the wheel and note the deflection it makes at the new spoke; very gradually tighten up the nipple until the wheel is again true.

"Should the end of the spoke come far through the nipple a wad of paper should be placed over it as well as the tape, or it will puncture the inner tube. A series of spokes is always best replaced by a competent repairer, as this means a somewhat lengthy truing up."

Bicycles in the Klondike.

The Klondike apparently holds small hope for the cycle trade. Writing from Dawson City, a *Bicycling World* correspondent says that there is no place to ride except on the board sidewalks, and no bicycles are in use save the very few that a few gold hunters rode over the ice and then sold in Dawson for a song.

Liked the Pierce Goods.

A good reputation is something not easily acquired, but, once obtained, it endures almost for all time.

Recently a Bicycling World man happened to be in a big Brooklyn housefurnishing store and to overhear a conversation which illustrated this. A salesman was talking to a customer who was looking at refrigerators. He was showing different ones, explaining their advantages and occasionally mentioning other makes that the concern had at one time handled.

"There was one refrigerator that we handled for years," he said, "and it would have been hard to improve on it. No one ever expressed anything but satisfaction with it. We should have been selling it today if it were still made. But it is not. The maker, George Pierce, of Buffalo, manufactured bicycles, too, and he became so rushed with them that he quit the refrigerator business altogether. We were sorry, of course, but there was nothing to do except to get the next best refrigerator to the Pierce. Here it is, madam."

Many dealers remember when the George N. Pierce Co. made children's tricycles and bicycles, together with a few adults' machines. But their manufacture was then only an adjunct to a large refrigerator and birdcage business. The concern made a certain quantity of these goods each year, and their salesmen, after first visiting the hardware house that sold their refrigerators and birdcages, hunted up a cycle concern and sold a few cycles "on the side."

Adjustable in Two Directions.

Adjustable handle bars are of two broad types: One in which the transverse bar is in one piece, swinging on the stem as a pivot, the distance between the grips being always the same; in the other the bar is in two pieces, meeting at the stem and hinged there, working up and down, and the distance between the grips constantly varying.

To provide a handle bar which can not only be adjusted vertically in the usual way, but also made up into practically any curve that the rider fancies, has been the aim of an Englishman. He has several methods, but the underlying principle of each is the same, and two of his devices for the purpose are thus described:

No. 1 is an arrangement of balls and sockets, which are strung alternately on an extensible wire with a thread and tension nut at the very end. The balls and sockets are arranged to the shape the rider fancies, and then the nut on the tension wire is tightened, and the handle bar is firmly fixed to the desired conformation. Corrugations, projections or other means of increasing frictional contact help to make the bar firm. Hollow steel bars, or balls of fibre, or steel with aluminum cased fibre sockets, can be used when it is required to keep the weight down.

No. 2 arrangement has circular wedges strung on a wire which form a readily ad-

justable bar by turning the wedges on the wire as an axis. The wedges are cut from a rod or from tube, open to the form of a circle. The method of obtaining the extra frictional grip is the same in this case as in No. 1.

Has a Self-supporting Device.

Supports for bicycles have been talked about—and even made—ever since the safety came into general use. They are a good thing for certain riders—in theory. But, like many other good things, they never score a hit.

A self-supporting device has been placed on the market by an Englishman. It can be applied to any ordinary bicycle, the object being to provide a simple means whereby two legs or supports usually carried free from the ground and parallel with the machine can be brought into contact with the ground for supporting its rider in an upright position.

A lever on the top tube working in a couple of toothed segments swings both the legs in or out of action simultaneously, and the whole arrangement can be clipped onto an existing machine without trouble. The inventor is well aware that the average cyclist will laugh his "bicycle prop" to scorn, but he has not devised it for the average rider, but merely that men of his own age who would otherwise take to tricycling can ride a two-wheeler without the feeling of insecurity which undoubtedly afflicts some of the veterans who take to bicycling very late in life.

For such it should prove useful, as, of course, so far as ease of propulsion is concerned the bicycle with its supporting device is lighter driving than any three-wheel machine, though, as the majority of those who would require a support are not in any way troubled about questions of speed, the tricycle is altogether a more suitable machine, and the one from which they would obtain the greatest enjoyment.

That Pope-Schwab Talk Arouses Jersey.

It is a far cry from the published desire of Colonel Pope and Mr. Schwab to obtain a dozen or so good men at \$25,000 per year to a disquisition on the labor question.

Yet that is just what it has led to, the columns of the Jersey City Journal being filled with an acrimonious correspondence on the subject. One gentleman, presumably representing "capital," points triumphantly to the demand for good men, as illustrated by this conversation, while his opponent launches forth into a long dissertation on the great questions of intemperance, Sabbath desecration, social impurity and crime, which, he says, are more industrial and economic than moral and religious problems to be solved.

Incidentally, he remarks that the stock of Colonel Pope's corporation is hard to sell, and Mr. Schwab's is so young that it has had little time to depreciate.

Worth a Little Trouble.

Particular riders—the other kind neither need nor will take advice—are recommended to proceed carefully in the matter of cleaning and lubricating the bearings of their machines.

A little trouble in this direction will pay many times over. A bearing clogged with dirt or gummed with oil cannot be expected to give anything but poor results. Similarly, if oil is lacking altogether, the case is just as bad, possibly even worse. Theorists may claim that a well-made ball bearing will run just as well without a lubricant as with one, but the assertion will always be taken with a grain of salt. No cyclist will knowingly run a bearing dry, understanding well that ruin may be the result.

To clean bearings it is advisable to use refined kerosene, which clears out all resinous substances and leaves nothing behind. Only pure oil should be used for lubricating bearings, as it contains no acids and does not thicken, but uses itself until it disappears. The lubrication should be done slowly, drop by drop, as only the oil which goes over the friction parts does its work. It is advisable to insert a thin wire, as used for flowers, along which the oil runs. For lubricating the chain links a drop can is the best.

Factory Costs and Accounting.

Factory costs and the methods of keeping them is a subject that never loses interest for the men who foot the bills; their eyes are necessarily ever on that item of their businesses. Because of the fact "The Complete Costkeeper," by Henry Lucien Arnold, and published by the Engineering Magazine Press, of New York, should meet with a considerable welcome. It is a work of more than 400 pages, many of which are devoted to blank forms and illustrations which show how best to keep account of the pennies and to prevent the small leaks that are so draining. The subject of factory costs and accounting is handled with admirable intelligence, and includes also an exposition of the advantages of account keeping by means of cards, instead of books, that can scarce fail of general interest.

Thinks Levers are the Thing.

Although long since dead and buried, levers as a method of driving a bicycle continue to raise their head every now and then. This time it is an Englishman named Johnson, who thinks the cycling world is just dying to take to levers.

His machine is, says the description, in appearance, a lady's frame, the cranks, or pedal arms, being oscillating levers pivoted just behind the usual place for the crank bracket. Near the end of the pedal arms rods are hinged, and these rise up to drive a chain wheel placed below and behind the saddle, whence a chain communicates the power to the rear wheel. In other words, the power is taken along two sides of a triangle instead of one, and the motion of the feet is vertical instead of rotary.

After Getting Off at Buffalo.

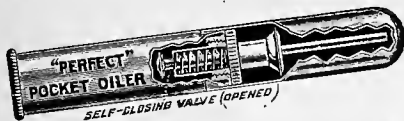
To those of the trade intending to take in the Pan-American Exposition at Buffalo the securing of suitable accommodations at reasonable prices is one of the main questions. In this connection J. H. Johnson, of 35 Niagara street, the well-known National agent, is in a position to offer a solution of the vexed problem, having fitted up his very comfortable home for the reception of those in the trade who intend to be in Buffalo this summer. The location is a good one, and everything possible is done to make a stay there pleasant. Particulars can be had upon application to Mr. Johnson.

Madeira no Cycle-mart.

Madeira is another of the unlikely countries, from a cycling standpoint.

"Our roads (!) are too mountainous to permit of the use of bicycles," writes a Bicycling World correspondent at Funchal. "In the country we use horses, donkeys and oxen; in the city we ride on sleds drawn by oxen."

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For High Grade Bicycles. The best and neatest Oiler in the market **DOES NOT LEAK**. The "PERFECT" is the only Oiler that regulates the supply of oil to a drop. It is absolutely unequalled. Price, 25 cents each. We make cheaper oilers, also.

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1 DOZ. of my Automobile Dry Battery anywhere, f. o. b. New York, **FOR \$3.**

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WILLIAM ROCHE,

Inventor and Sole Manufacturer of New Standard Specialties.
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wheels must have the best equipments.

There is nothing that gives more value for the money than the use of the

MORSE TWIN ROLLER CHAIN

NOISELESS IN MUD, WATER OR DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless Rocker Joints. Insist on having the Morse Twin Roller. Fits regular sprockets.

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HAND AND FOOT PUMPS,

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LIGHT, SIMPLE, DURABLE.

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Send 26 cents for Fob. \$1.80 per dozen.

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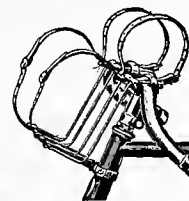
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The most
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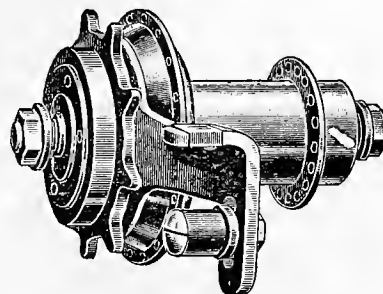
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Ideal Spring Seat Post.

It relieves all jolts and jars, and converts any Bicycle, new or old, into a Cushion Frame. Fits any wheel. Sent prepaid to any address on receipt of \$1.75. Money back after three days' trial if you want it. Send size of present post. D. E. ORVIS & CO., 71 E. Seneca St. Buffalo, N. Y. Reference, Buffalo Commercial Bank.

Dealers send for Circular and Wholesale Price List.

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THERE IS NONE OTHER QUITE SO GOOD. IT HAS FEATURES ALL ITS OWN.

Write for Catalogue and Quotations.

Universal Coaster Brake Co., Office 318 Elliott Square, Buffalo, N. Y.
Brandenburg Bros. & Wallace, Selling Agents, New York and Chicago.

The Week's Patents.

678,372. Spring for Velocipede Saddles. Albert F. Blagdon-Richards, Swansea, England. Filed Nov. 9, 1898. Serial No. 695,947. (No model.)

Claim.—1. A saddle spring comprising a horizontal portion and four volute coils springing therefrom, two in front and two in the rear, said volute coils extending downwardly from and substantially longitudinally of the horizontal portion, and being separated transversely sufficiently to permit the passage of a saddle stalk longitudinally between the volute coils, and each volute coil remaining separate and distinct from the others all along its course save at its junction with the horizontal portion.

678,375. Acetylene Gas Generator. Arthur M. Carey, Middlesbrough, England. Filed Dec. 26, 1899. Serial No. 741,625. (No model.)

Claim.—1. In an improved acetylene gas generator and burner for cycles, the combination of a perforated cartridge for containing carbide of calcium and a perforated tube passing through the said cartridge, the said cartridge being inclosed within a perforated tube having a central diaphragm for forming a water chamber charged through an aperture in a plug closing the upper end of the tube, the said diaphragm having a central water passage governed by a rod passing upward through and controlled by a handle, the water passage being the means by which water is admitted to the carbide, the gas as generated thereby passing out into and from an outer tube concealed within the steering tube of the cycle, the said tube communicating with and carrying the handlebars, acting as reservoirs for the gas, substantially as herein set forth and shown by the drawings.

678,385. Machine for Generating Gear Teeth. Frank E. Ferris, Detroit, Mich., assignor to the Leland & Faulconer Manufacturing Company, same place. Filed March 21, 1900. Serial No. 9,537. (No model.)

Claim.—1. In a machine for generating gear teeth, means to carry a gear to be generated, and two rotatable cutters arranged at an angle to an intermediate plane passing through the cone centre of the gear, whereby said cutters will cut at their adjacent peripheral edges or corners, means to reciprocate said cutters in operation to shape both sides of a gear tooth simultaneously, and a former to guide the movement of the cutters to give the desired contour of the tooth.

678,486. Reversible Driving Gear. Reuben M. Head, Allegheny, Penn. Filed April 17, 1900. Serial No. 13,256. (No model.)

Claim.—1. In changeable speed mechanism, the combination, with the pedal cranks, of a crank axle, a sleeve carrying the main sprocket or bevel gear wheel, a pedal crank clutch member, a clutch member on the sleeve, and means actuated by the pedal cranks for shafting the axle to bring said clutch member into engagement, substantially as set forth.

678,504. Pneumatic Tire. Joseph G. Mooney, Erie, Penn., assignor to Lake Shore Rubber Company, same place. Filed Feb. 16, 1901. Serial No. 47,678. (No model.)

Claim.—1. In a pneumatic tire, the combination of an inner air tube; a sleeve of non-vulcanizing and adhesive material joining the ends of said tube, and an outer sleeve.

2. In a pneumatic tire, the combination of an inner air tube; a sleeve of non-vulcanizing and adhesive material joining the ends of said tube, and an outer cover vulcanized and

forming a complete annulus over said tube.

678,510. Pneumatic Tire and Inner Tube Therefor. Charles G. Page, Oak Park, Ill. Filed June 7, 1901. Serial No. 63,602. (No model.)

Claim.—1. Closing the end of an inner tube for pneumatic tires by folding a piece of rubber fabric upon the end portion of the tube, the fabric being wider than the tube, so as to form two flaps, embracing the tube and projecting laterally therefrom; uniting the projecting end portions of such flaps to form lateral webs or flanges, and folding such flanges over upon the tube and securing them in such folded condition.

678,572. Rear Hub Coaster and Brake. Edward F. Kelley, South Norwalk, Conn. Filed Oct. 5, 1900. Serial No. 32,159. (No model.)

Claim.—1. A device of the character described comprising a hub, flanged inner and outer rings carried thereby, pawls carried by said inner ring and having lugs lying in holes in the flange of the inner ring to prevent relative displacement of the pawls, and a driven wheel and a non-rotating intermediate ring lying between the flanges, said driven wheel being mounted rotatably on the inner ring and having recesses with abrupt faces and inclines engaged by the pawls and in its outer face inclined grooves, and said intermediate ring having in its inner face a ball race, and balls in said ball race and grooves, the pawls acting to drive the hub when the driven wheel turns forward and the balls riding up the inclines when the driven wheel is moved backward and forcing the intermediate ring and the driven wheel laterally against the flanges upon the inner and outer ring and stopping the rotation of the hub.

678,673. Bicycle Racing Machine. Joseph Matthews, New-Bedford, Mass. Filed Aug. 22, 1900. Serial No. 27,719. (No model.)

Claim.—1. In a bicycle racing machine, the combination of rotary shafts respectively for transmitting the movement of a plurality of bicycles, a number of annuli mounted one within the other and independently turnable or and in each other, the annuli having gears formed thereon, pinions attached to the shafts and respectively meshed with the gears on the annuli, and indicating devices respectively in connection with the annuli.

678,822. Bicycle Lock. Harvey M. Wood, Denver, Col. Filed Oct. 30, 1900. Serial No. 34,969. (No model.)

Claim.—1. In a bicycle lock the combination of a bracket having an opening surrounded by an unbroken wall and arranged to be applied to a part of the frame of the machine adjacent a wheel thereof, means applied to the bracket for compressing its walls upon the part to which it is attached, to fasten it in place, a casing mounted on the bracket, and a plunger located within the casing and adapted to be projected between the spokes of the adjacent wheel of the machine.

Legal but not Compulsory.

The metric system came up for discussion in the British House of Commons recently. In reply to the assertion that there was a great yearly loss of trade consequent upon the retention of the antiquated system of weights and measures, it was pointed out that the Act of 1897 removed any legal impediment to the adoption of the metric standards. As to making the use of the new system compulsory, the Government was not ready to take such a radical step.

The Week's Exports.

Antwerp—3 cases bicycles, \$216.
 Argentine Republic—3 cases bicycles and material, \$210.
 Amsterdam—11 cases bicycles, \$337.
 British West Indies—18 cases bicycles and material, \$433.
 Bremen—10 cases bicycles, \$624; 2 cases bicycle material, \$85.
 British Australia—2 cases bicycles, \$108.
 Brazil—8 cases bicycles and material, \$375.
 British possessions in Africa—30 cases bicycles and parts, \$2,263.
 Copenhagen—42 cases bicycles, \$735; 11 cases bicycle material, \$353.
 Cuba—8 cases bicycles and material, \$435.
 Dutch Guiana—26 cases bicycles and parts, \$1,011.
 Frankfort—2 cases bicycle material, \$30.
 Glasgow—6 cases bicycles, \$90.
 Genoa—3 cases bicycles, \$130.
 Gothenburg—1 case bicycles, \$30.
 Hamburg—19 cases bicycles, \$1,424; 5 cases bicycle material, \$60.
 Helsingfors—9 cases bicycle material, \$207.
 Havre—104 cases bicycles, \$2,814; 30 cases bicycle material, \$1,455.
 Jacobstadt—6 cases bicycles, \$480.
 London—200 cases bicycles, \$1,600; 28 cases bicycle material, \$1,305.
 Liverpool—76 cases bicycles, \$1,905; 3 cases bicycle material, \$150.
 Newfoundland—6 cases bicycles and parts, \$140.
 Rotterdam—103 cases bicycles, \$1,100; 33 cases bicycle material, \$1,100.
 San Domingo—11 cases bicycles and material, \$238.
 St. Petersburg—1 case bicycle material, \$30.

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

Highback Coaches on B. & A.

Commencing Thursday, July 11, the Boston & Albany R. R. will run vestibuled high-back seat COACHES between Boston and Buffalo, on trains 7 and 18, except Sunday, and on trains 29 and 36 daily. Also, Pullman parlor cars on trains 15 and 18, daily. ***

73

THE BICYCLING WORLD

FOUNDED
1877

and MOTORCYCLE REVIEW

U. S. Patent Office
Dept. of Interior

In which is incorporated "THE WHEEL" (New York) and the "AMERICAN CYCLIST" (Hartford)

Vol. XLIII.
No. 18.

New York, N. Y., U. S. A., Thursday, August 1, 1901.

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NOW READY.

REVISED EDITION OF

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BY A. J. WILSON.

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126 PAGES; 41 ILLUSTRATIONS.

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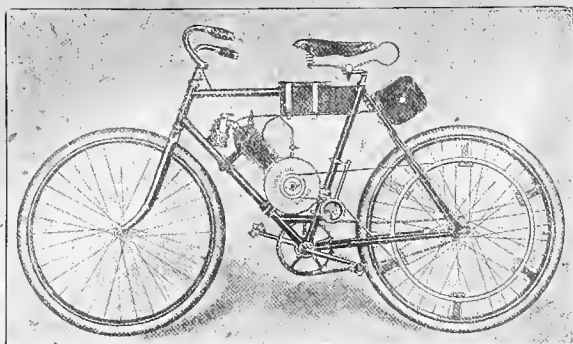
Contains Chapters on "The Motorcycle Itself: What it is and How it Works"; "Care and Keep
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MOTOR CYCLES

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Buy a **MERKEL MOTOR CYCLE** with its Single Lever Control and Frame Muffler. Simple. Good Control. Pretty. Any Speed.

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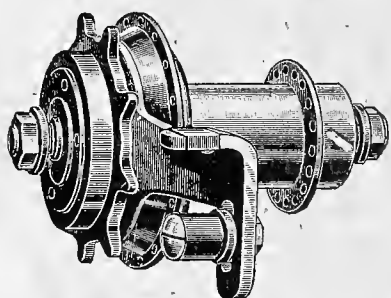
Fast
Instantly repaired
Safe
King of tires

Tread re-inforced
Inter-woven threads
Resilient
Easy-riding

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BRANCHES: SPRINGFIELD, NEW YORK, 99 Chambers St., SYRACUSE, BUFFALO, DETROIT, CHICAGO, 54 State St., SAN FRANCISCO, The Phil B. Bekeart Co., 114 Second St.
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It has features all its own.

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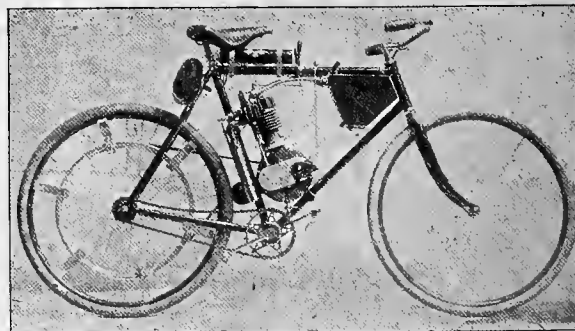
**WHAT'S THE USE
of Standing Astride the Fence?**

You know what the proverbs say: "The man who hesitates is lost"; "Faint heart ne'er won fair lady," etc., etc.

GET OFF THE FENCE!

If there's "nothin' doing" in your locality, get off the quicker. It's time you interested yourself in motor cycles. You can't do it too soon, and you you won't be able to find so good a motor bicycle as

THE MARSH.



It will draw crowds to your window and fill your store with probable buyers. If you know how to talk, the rest is easy.

The Marsh has features all its own; you can't afford to overlook them.
It will prove an invigorating

TONIC FOR LANGUISHING TRADE.

Our catalog is interesting; our offer to agents is full of magnetism. They may be the means of getting you off the fence. Write us.

MOTOR CYCLE MFG. CO., BROCKTON, MASS.

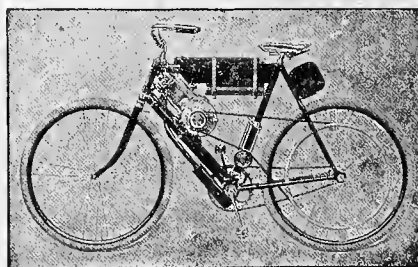
K-K-O Tires

K-K-O to be on the go, get your tires from
Kokomo. Made and sold by
KOKOMO RUBBER CO., Kokomo, Ind.

FOR SALE BY

C. S. Knowles, 7 Arch St., Boston. Bornn & Co., 82 Broad St., New York City.
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**PERFECTLY SATISFIED WITH
THE THOMAS AUTO-BI**



Mr. Joseph Downs, of Islip, N. Y., under date of July 16th, writes as follows:

"I took a hundred mile run on my motor three weeks ago, and fifteen miles of it was through a heavy down-pour of rain, and the motor worked first class. I was not out of my saddle but twice in the whole run. Once to refill gasoline tank and once to repair a puncture; otherwise I had no trouble at all. Think the motor will do all you claim for it, and a little more. I am perfectly satisfied with it."

We also build tricycles and quads.
Write for interesting prices on them.

E. R. THOMAS MOTOR CO., Inc.
106 BROADWAY, BUFFALO, N. Y.



The Missing Link
between
A BICYCLE AND AN AUTOMOBILE
IS
THE RACYCLE

SAVES 27% OF THE RIDERS STRENGTH.
A Racycle differs from a bicycle therefore its price is different.
THERE ARE NO CHEAP RACYCLES.
Send for Descriptive Novelties, Catalogues and Prices.

F.M. JONES, SACRAMENTO, CAL. PACIFIC COAST AGT.
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MIAMI CYCLE & MFG. CO.
MIDDLETOWN, O.

For Immediate Delivery:

One Inch Flush Joint

Frame Fittings

WITH FLUSH HEAD SET.

Oval Rear Lugs on both Cluster and Crank Box.

THE CROSBY COMPANY, BUFFALO, N. Y.



Will You Stand Still or Move Forward?

Are You a Rip Van Winkler or an "Onward-and-Upwarder"?

Have You Applied for the Royal Agency

or

Are You Simply Wishing and Waiting for Something to Turn up?

Making due allowances for "the craze," have you ever asked yourself why people do not purchase bicycles as freely as of yore? If so, what conclusion have you reached?

Is it not a fact that the chief reason is that there is nothing new in pedal-propelled bicycles for people to purchase—nothing for them to see or to learn or to talk about or for the newspapers to write about and thus arouse new interest?

DO YOU KNOW OF ANYTHING

better calculated to achieve that result than



THIS



ROYAL MOTOR BICYCLE.

"As good as it looks."

Do you know of anything that will create more talk or give the riders newer and more exhilarating sensations and experiences? Do you know of anything else that removes the last objection to cycling—that muscle-straining, lung-cracking, perspiration-creating climbing of hills and "bucking" of headwinds? Do you know of anything else that transforms such work into such pleasure? Do you mean to say that there are not hundreds of people in your town to whom such a bicycle will not appeal? Do you know of any better time than now to set about arousing their interest?

In short, are you a Rip Van Winkler—a "waiter" and "wisher," or are you of the up-and-doing class—the class that knows a good thing when it sees it, and, seeing it, gets hold of it on the double quick—the class that looks to the future instead of wasting regrets on the past?

IF YOU ARE OF THIS CLASS WE WANT TO KNOW YOU. WE HAVE A PROPOSITION THAT CANNOT BUT APPEAL TO YOU.

ROYAL MOTOR WORKS, . . . CHICOPEE FALLS, MASS.

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., August 1, 1901.

No. 18

TRANSFERRED TO HARTFORD

American Dunlops to be Made There—Belleville Plant to be Abandoned.

Hereafter the manufacture and sale of Dunlop tires will be conducted from Hartford, Conn.

The Hartford Rubber Works Co., which has for some time been making the rubber, etc., used in these tires, will now take over their entire manufacture. The sales end of the business will be handled by the Dunlop Department, Hartford Rubber Works, where all correspondence should be addressed.

The move is not altogether unexpected. There have been rumors that such a change was contemplated, and the action noted, official confirmation of which has been sent out, showed that they were well based. The transfer is a result of the policy of centralization which the Rubber Goods Mfg. Co., of which both the Hartford and Dunlop companies are part—is carrying out.

The factory at Belleville will be closed and dismantled and the employees laid off. President Kirk Brown will retain his connection with the company, but will not go to Hartford or take any part in the management of the business there.

England Behind the Times on Enameling.

Dealing with the matter of enamelling, an English cycle paper says that "it is almost out of the question to think of white, although red is not impossible." Is it possible that England is so very far behind the times? Whites and reds have been used in this country for nearly ten years.

Dikeman Named as Trustee.

According to press dispatches from Torrington, Conn., Charles S. Dikeman, secretary of the Eagle Bicycle Mfg. Co., has been appointed trustee of the Miller Manufacturing Co. who made the arc bicycle lamps.

Mrs. Honeyman and Sons in Charge.

The well known jobbing firm of Honeyman, De Hart & Co., Portland, Ore., has been succeeded by the Honeyman Hardware Co., a joint stock company; Mrs. T. D. Honeyman and her sons are the incorporators.

Willis Makes a New Move.

The Willis Commission Co., of this city, was incorporated at Albany last week, with a capital of \$30,000. E. J. Willis is president and J. C. Hollingsworth vice-president. Messrs. Willis and Hollingsworth are connected with the Willis Park Row Bicycle Co., but the incorporation of the new concern will in no wise interfere with their conduct of the Park Row Co.'s affairs.

The Commission Co. was brought to life primarily to undertake the sale of the "Hydra" electric battery, in which Willis holds a large interest. It is extremely probable, however, that the sales operations will be extended in other directions, articles in addition to the "Hydra" batteries being taken up.

Price-Cutting Proved Unprofitable.

William H. Burroughs, dealer in bicycles and supplies under the style of the Burroughs Cycle Co., at 7 Barclay street, filed a petition in bankruptcy last week, with liabilities \$8,397 and assets \$2,798. His assets consist of real estate, \$1,500, which is situated at 170 Richardson street, Brooklyn, mortgaged for \$1,200; stock in trade, \$1,000; cash, \$18, and accounts, \$280. Of his liabilities \$185 is for wages to a clerk and \$4,200 to Fanny T. Burroughs for money loaned to him. There are thirty-five creditors.

On Tuesday Judge Thomas appointed George H. Gilman receiver of the assets of Burroughs.

Norvell-Shapleigh Incorporates.

The reorganization of the Shapleigh Hardware Co., of St. Louis, the Norvell-Shapleigh Hardware Co., which took charge of the affairs of the old concern on July 1st, has filed papers and articles of incorporation, showing a capitalization of \$1,000,000. The stockholders are Saunders Norvell, William S. Yantis, Taylor D. Kellogg, H. B. Gordon, A. F. Shapleigh and August Shapleigh Boyd.

From Firm to Corporation.

The firm of Davis, Hunt & Collister, Cleveland, O., has become an Ohio corporation, the necessary authority having been granted on the application of E. P. Hunt, E. L. Davis, J. H. Collister, William P. Fisher and Richard Collister. The capital stock is placed at \$65,000.

PATEE IN STRAITS

Creditors Ask for a Receiver, but Patee Himself Still "Has Hopes."

The Patee Bicycle Co., of Indianapolis, Ind., is in financial straits, and unless outside capital can be enlisted, it is hardly probable that it will be able to weather its difficulties. Mr. Patee is hopeful of obtaining this end, however, but for the protection of all creditors, several of those most heavily involved have applied for the appointment of a receiver.

The embarrassment had been so clearly foreshadowed, however, that the climax will occasion little surprise. Patee has been pinched for funds for some time, and has resorted to extreme measures in the effort to ward off bankruptcy. His last effort to that end was to announce a reduction in the price of his motor bicycles to \$150, of which he had produced but few, despite a fair volume of orders in hand.

When the distress became too evident, a conference of creditors was held and as the result of their investigations the following statement was issued of date July 27:

"The undersigned have made a preliminary inquiry into the affairs of the Patee Bicycle Co., and an examination of its books and tangible assets. We are convinced that the concern cannot pay creditors in full under the most favorable conditions, unless ample extension is granted and the affairs of the company meanwhile are under expert management. For the equal protection of all creditors, application has been made for a receiver. There is reasonable prospect of a settlement if Mr. Patee can succeed, as he hopes to do, in enlisting outside capital."

Orient Motocycle Prices Reduced.

The Waltham Mfg. Co. has announced the price of its Orient motorcycles for the year August 1, 1901-August 1, 1902, as follows: Motor bicycles, with 2 1-4 h. p. Aster or De Dion motors, \$250; convertible motor quadricycles, with 2 3/4 h. p. Aster motors, \$375. The previous prices were \$300 and \$600, respectively.

RESIGNS ONE OFFICE

**To Devote More Time to Rubber Goods Co.
—Mr. Flint Then Issues a Statement.**

In resigning the treasurership of the United States Rubber Co. last week it is understood that Charles R. Flint will devote more time than ever to the affairs of the Rubber Goods Mfg. Co., in which he is such a prominent figure. He remains a director in the former concern, but will take no active part in its management.

Concerning this step, Mr. Flint gave out the following statement:

"For some time I have had only a nominal interest in the United States Rubber Co. In view of my large interest in the Rubber Goods Mfg. Co. and the increasing demands on my time, I have thought it better to make way for some one who had a large stock interest, and who, from the point of view of policy and time, could give closer attention to the affairs of the United States company."

At the present time Mr. Flint is the chairman of the executive committee and the largest shareholder of the Rubber Goods Mfg. Co. The earnings of this company for the six months ending June 30, 1901, were \$1,209,563.99, or at the rate of 7 per cent per annum on the preferred stock and more than 11 per cent on the common stock.

After deducting the two quarterly dividends on the preferred stock of 1½ per cent, of March and June, and the two quarterly dividends on the common stock of 1 per cent, of April 15 and July 16, together with the sum of \$120,000 paid to the American Bicycle Co. in consideration of the cancellation of guarantees given to that company, there remained a surplus of \$468,930.99, which is at the rate of more than 5 per cent per annum on the common stock.

It was rumored that the October dividend on the common stock would be increased at the rate of at least 6 per cent per annum, but Mr. Flint refuted the story. He said that the directors deemed it a more conservative policy to accumulate a surplus rather than increase the dividends on the common stock.

When asked if a plan were under way to effect consolidation of all the crude rubber and rubber manufacturing concerns of the country, Mr. Flint hinted that such was the case. He said:

"Twenty years' experience in industrial consolidation has convinced me that a neutral party is necessary to a successful consolidation. In the consolidations with which I have been identified, such as the American Cicle Co., the American Caramel Co., the United States Bobbin and Shuttle Co., the National Starch Co. and others, I had no connection with either of the companies prior to the negotiations for consolidation. I consider that the United States Steel Corporation typifies the acme of scientific business, and I have no doubt that what has taken place in the steel industry will eventually come to pass in the rubber industry."

Partner Gone, Firm Bankrupt.

The presence of Orin E. Laraway is very much desired in Sandy Hill, N. Y. He is charged with leaving for parts unknown, taking with him another man's wife and leaving a shortage of \$1,000 in the accounts of Laraway & Wells, dealers in bicycles and sporting goods.

As a consequence of this alleged abstraction of funds, Junie Wells, of the firm, through his attorney, H. W. Williams, of Glens Falls, has filed a petition in bankruptcy, individually and for the firm. The estimated liabilities are \$1,800 and the estimated assets about \$1,400. An investigation of Laraway's accounts was made, and they were found to be in bad shape. He had had full charge of the books and transacted all of the firm's business, while Wells looked after the repair room. Both Wells and his attorney decline to say much for publication, but from a reliable authority it is learned that Laraway's shortages are estimated to be at least \$1,000.

May Erect Plant at Bridgeport.

At a meeting of the stockholders of the Connecticut Fibre Company held at Jersey City, N. J., last week the following officers and directors were chosen:

E. N. Sipperley, of Westport, who has been the general manager, was chosen president; J. W. Range, vice-president; Dr. D. R. Beebe, secretary, and Attorney George W. Carey, treasurer. The fifth director is J. W. Thorn-ton, of Jersey City.

The company manufactures a punctureless bicycle and carriage tire, and at present its works are in Chicopee Falls, Mass. The business has been growing steadily for the past year, and if the growth continues to warrant the erection of a plant the site will in all probability be selected in Bridgeport, Conn.

Bondholders Want Full Payment.

At the final session of the April term of the Superior Court, held at Middletown, Conn., last week, Judge Elmer presiding, the case of the Keating Wheel & Automobile Company came up. C. E. Bacon, representing Receiver Betts, of the concern, stated that they desired no supplementary orders, and this receivership will be continued until the September term of court and the sale of the plant and personal property to the Eisenhulth Horseless Vehicle Company, of New York.

As soon as the sale is completed the first mortgage bondholders to the extent of \$88,000 will probably demand the face value of their bonds instead of 80 per cent as the terms of the sale provide. This will doubtless cause a fight in court.

A. B. C. Securities Slump Again.

Something struck the A. B. C. securities again last week. On an apparent sale of 100 shares of preferred, that stock slumped five points, being quoted at 20. The common stock was so low that it could scarcely be affected; it is now held at 5.

FISHING FOR FOREIGNERS

**Mail-Order Bait is Cast Abroad in a Fashion
That Should Make Importers Groan.**

The Mead Cycle Co. has made its appearance in the English daily papers, and if the Britons do not already realize the meaning of the American term "mail-order bicycles" full appreciation of it cannot be long postponed.

While the Mead people cannot throw their send-no-money chaff across the sea, their foreign bait is substantially the same as is employed in this country, as follows:

"Rider Agents Wanted in Great Britain—one in each town to ride and exhibit 1901 model cycle.

"Finest grades £2 5s. to £4 10s. carriage paid.

"'99 and '00 Models £1 5s. to £2 10s. Great factory clearing sale at half factory cost. Every machine fully guaranteed.

"We have a wonderfully liberal proposition for good Rider Agents. Write at once for our bargain list and Special Offer, using 2½d. stamp or 1d. post card."

The publication of the advertisement leads Cycling, of London, to remark:

"Of course, with an unknown concern, there is the risk of the money not reaching it or being overlooked; but, even provided there are no accidents of this sort, the machine that can sell at from 45s. to 90s. must be of a grade that is so fine that if it were at all finer its quality would be invisible. And last year's pattern and that of the year before can be had at one-half of these figures, 25s. to 50s., being 'half factory cost.' Um! And we can imagine the unctuous letter that each and every buyer will receive telling him that he is the only person in his district to be so favored, and appointing the poor deluded one an 'agent' for the machines."

The "unctuous letter" will also probably repeat the falsehood that the Mead people are circulating in this country—that they are exclusive bicycle manufacturers, when as a matter of fact they sell other goods and have never manufactured bicycles at any time within the knowledge of the cycle trade. On the other hand, it is known that they are supplied with thousands of bicycles at a price calculated to "stagger humanity" by the Bicycle Trust, that self-styled "conservator and protector" of the American industry.

Liabilities Three Times Assets.

A petition in bankruptcy has been filed by Thomas C. Rutland, of Lowell, Mass. His schedules show liabilities of \$4,829.47. Of this amount \$1,700 is secured to three creditors. He has assets of \$1,500, consisting for the most part of stock in trade valued at \$800, and debts due of \$700.

Valve Company's New Financier.

Colonel James Edgar, of Brockton, Mass., has purchased a half interest in the Hilton Valve Company, of Middleboro, Mass., and will look after the financial end of the business.

THE GERMANS' JOY

Fingers Fixed for Strangle-hold on the "Monster"—Prohibitive Tariff Proposed.

It is very evident that that peculiarly American institution, "log rolling," has found its way into Germany and been accepted as a good thing.

The "junkers," or agrarians, or agriculturists, by whichever name they prefer to go, have, by dint of constant outcry, made others as well as themselves believe that the salvation of the Empire depends on their obtaining "protection." Consequently, in making the first rough draft of the proposed German tariff bill, its framers have lent a willing ear to their adjurations, and piled on the duties until they reach staggering proportions.

Not to be outdone, however, the manufacturers have insisted that similar "protection" be granted them. If cheap food stuffs are to be kept out of Germany, cheap manufactures must be treated in the same manner. What is sauce for the goose is sauce for the gander.

As America is the chief country aimed at by the proposed retaliatory tariff, so certain articles imported for this country have been picked out for the most severe handling. The aim is, of course, to stamp out the business in these articles, and to accomplish this no stone is to be left unturned. Bicycles, for example, are slated to have a duty of 150 marks imposed on them. This is for completed bicycles. Parts in the rough are burdened with 40 marks duty, while on parts in the finished state the same duty as for complete machines, 150 marks, is imposed.

As the mark is valued at 23.8 cents, or \$36 on bicycles, it will be seen that the proposed duty is neither one levied "for revenue only," nor even for protection to home industries. It is plainly intended to shut out American bicycles altogether.

This attack is merely in line with the course pursued by the German trade for a considerable time past. Every possible means has been made use of to hurt the sale of American bicycles. Tariffs have been increased, boycotts have been instituted, and the retail trade and public have been warned again and again not to touch this pernicious article.

The war, while it has stopped short of complete success, has not been without marked effect. This is shown by the latest figures obtainable showing the exports and imports of cycles and cycle parts from and to Germany. The returns for the four months ending with April last show a total of 656 tons, as compared with only 597 tons in the corresponding period of last year. But while the exports are increasing, the imports of foreign cycles and cycle parts into Germany are still on the decline—from 161 tons in the first four months of 1900, to only 104 tons in the four months ending with April last.

It is almost certain, of course, that this

proposed duty of over \$36 will fail to become a law. But the best that can be expected is an increase in the present duty, and perhaps the throwing of fresh obstacles in the way of the export of bicycles from this country.

Another Defeat for Dunlop.

Another defeat has been encountered in the English courts by the Dunlop Tire Co. It is of importance chiefly because the big tire company's efforts to establish or maintain its monopoly was unsuccessful in this case.

Several years ago the Dunlop Co. entered into a contract with Moseley & Sons, Manchester fabric manufacturers to take from them a minimum of 100,000 yards of a certain fabric per year. This was the Flexifort fabric, which the Dunlop Co. has boomed so persistently ever since. It was agreed that as long as the stated quantity was taken Moseley & Sons should be debarred from selling this particular fabric to any one else. The tire concern carried out its part of the bargain, and recently sued the fabric makers for breach of contract, alleging that they were selling a "colorable imitation" of Flexifort to rival concerns.

It was brought out by the defense that when the Dunlop Co. made this contract it had submitted to it both the Flexifort and another fabric, cheaper, and claimed to be quite as good. They chose Flexifort, however, and Moseley & Sons proceeded to build up a trade in the other material.

In the course of time the Dunlop Co. came to the conclusion that its experts had been wrong; that the superiority of Flexifort was fancied, and that the other fabric was as good as or even better than its rival. Desiring to stop others from using the once-despised fabric, suit was brought as stated above. The court held, however, that the Dunlop Co. had made its choice and could not go behind the returns now. A verdict was consequently given in favor of Moseley, with costs assessed on Dunlop.

Motocycle Interest in Massachusetts.

George M. Hendee, of the Hendee Mfg. Co., was among the visitors in New York last week. He is actively preparing for next season, his motor bicycle, of course, figuring largely in his plans. He is not rushing it in any way, however, but is proceeding with caution, and does not mean that it shall be offered for sale until he is ready to make deliveries.

The original model is now on exhibition in a retail store in Springfield, and Hendee thinks that there are few inhabitants of the town who have not called to see it. Dealers and repairmen from surrounding towns in Massachusetts have also displayed a lively and intelligent interest. Hendee says he has been visited by quite a number, all of them anxious to learn all they could about the construction and care of such machines.

"How to Drive a Motorcycle." See "Motorcycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York. ***

THAT "HOODOOED" FACTORY

Westboro's Famous "White Elephant" Again Awaits an Occupant.

After many very disagreeable experiences, Westboro, Mass., has gone out of the promoting business for good and all.

The little New England town, which is described as a delightful town for residence and convenient and desirable for business, with every modern improvement, has pulled a good many apples out of the promoting bag, and always with the same result in the end.

Hereafter it will welcome with open arms any legitimate industry that will locate there, and will do all it reasonably can to encourage their coming and make their stay agreeable; but the principle of buying business, or, in other words, bidding for it, is no longer popular.

Now that the Locomobile Co. has removed to Bridgeport, the future of the famous Westboro factory remains to be seen. It seems hardly probable that it will remain idle for a very long time, although all the machinery and most of the shafting have been removed.

"The factory has seen many ups and downs," says a Westboro paper. "It was built for the manufacture of White Flyer bicycles, which, after sending to the depths of oblivion many thousands of dollars of the hard earnings of the Westboro people, flew out of existence, the machine being practically worthless.

"The M. V. Livingston company followed and made the Broncho bicycle, which was soon shown to be 'in the soup,' and many thousand dollars more went out. The Densmore-Yost company then came in, and flourished a little while and then collapsed. Last and greatest in the bicycle business was the Humber company, which was an English concern, the greatest bicycle concern in existence at that time, having extensive factories in various cities in Europe, that was for a time supposed to be on a rock foundation that could not be moved. But the limit came, and the manufacture of the Humber wheel, which had a reputation for excellence unsurpassed in this or any other country, found its end. The factory was then purchased by the Stanley Locomobile Co.

"One great cause of the collapse of the bicycle companies was bad and extravagant management, which is pretty sure to kill any business sooner or later.

"Many a Westboro hard-working mechanic took stock in the business when it was first established in that factory, and has never seen a cent of it in return."

Holman & Morse, Keene, N. H., have filed a petition in bankruptcy at the office of the clerk of the United States Court.

ANOTHER WORLD'S RECORD BROKEN !

. . . ON . . .



"The Little Blue Wheel."

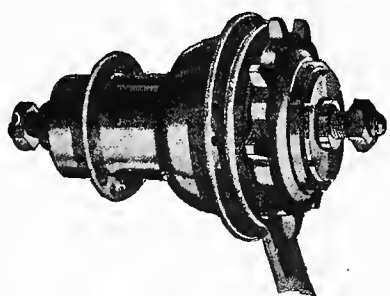
WILLIE FENN, "THE BOY WONDER," AND HIS NATIONAL BICYCLE,
MAKE A COMBINATION HARD TO BEAT.

June 30th, at Vailsburg, N. J., Fenn won the 5-mile handicap from the 100-yard mark in 10 min., 29 2-5 sec. Although fast, the time could not stand as a record, as he did not ride from scratch.

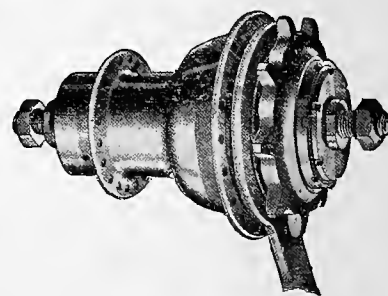
July 4th, at the same place, he rode from scratch, making the 5 miles in 10 min., 33 2-5 sec., world's unpaced competition record, the best previous time being 10 min., 45 sec.

GOOD RIDERS RIDE RECORD BREAKERS.

"Make Sales While the Sun Shines."



The
MORROW
will help you.



There's nothing on the market that affords such
effective hot weather argument.

ECLIPSE MFG. CO.,

ELMIRA, N. Y.

THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should

Address us at P. O. Box 649.

NEW YORK, AUGUST 1, 1901.

Has a Long Road Ahead.

Usually a very wide gulf separates "proposed" tariffs and enacted ones.

Therefore, it is unnecessary to look upon the proposed German tariff on bicycles with any great alarm. The measure has a long road to travel before it becomes legal and in force, and many and material changes are almost certain to be made in it in the interim.

At the same time the proposed measure is a fresh confirmation of the already well understood fact that Germany is prepared to go any safe length to attain its desire. Protection to home industries—that is the aim, no matter whether this protection is attained at the expense of those it professes to protect or not.

Added to this there is a very strong desire to "get at" certain articles of American manufacture, as an offset to certain real or fancied harm these articles have caused German manufacturers or dealers.

The bicycle has the dangerous honor of being one of these.

It has been declaimed against, legislated at, and baited at every turn. To keep it out at any cost has been the aim of all concerned in the crusade against it.

The wonder is that the trade has been only hurt, not killed. But it takes more than tariffs to keep out a meritorious article, and this is likely to be exemplified in the case of the American bicycle.

The preposterous duty of 150 marks—nearly \$35—per bicycle will never find a place on the statute books, of course.

It is probably proposed as the extreme limit the manufacturers and others interested in bicycles of German make would like to go.

But it is likely to be so badly mauled in the stages preceding adoption that its own framer will not know it.

Public Interest is Aroused.

There is no doubt that the general public, having ceased to be enthusiastic over bicycles, is watching the motor vehicle in much the same manner that it did the former during the years when they were making their way into favor.

The motorcycle in particular is regarded as the legitimate successor of the bicycle—or perhaps it would be more exact to say the next great step in the direction of vehicular progress.

It is just the thing to stimulate jaded appetites or to tempt the comparatively few persons who held aloof from the cycle movement. Vigorous youth has slight advantage over maturity or even feebleness where the motor vehicle is concerned.

But it does not follow that any such rush for them as was made for bicycles is imminent. The boom, if one should come, will materialize only after trade and public have had a much more extended experience with them than is the case at present.

The bicycle problem was a very simple one compared to the motor problem.

The differences between bicycles were relatively small, and even they disappeared after a few years. The best type of pedal-driven vehicle was soon determined, and thenceforth it was never materially departed from.

But with motor vehicles, even with motorcycles, no approach to uniformity is possible.

So many different considerations must enter into the choice of a motorcycle that wide variations in pattern will necessarily exist for a considerable time to come.

Nevertheless, every step in this direction

will be watched, and there will rarely be any lack of buyers for the right kind of motorcycles.

Second-hands in Demand.

Second-hand bicycles are a drug on the market. They have been on the down grade for many years, and each season it appears the bottom has been reached. So the average tradesman will declare, at least.

It is foolish to "trade-in" such machines, they declare. They must be sold—if they can be sold at all—at any price they will bring. Frequently it will be found that they will bring little more than the cost of overhauling, and this only after a long wait.

This song has been sung for so long, and there has undoubtedly been so much truth in it, that no one thinks of questioning it.

But the picture is very much overdrawn. The colors are too dark and laid on too thickly. The actual situation in the second-hand wheel market has undergone marked improvement, as even a slight study of it will demonstrate unmistakably.

This improvement is due, in the first place, to a better demand for second-hands. Coming, as this does, during a particularly bad season, it is the more remarkable as well as gratifying.

Dealers are probably not buying such machines with any marked degree of freedom. They have been taught caution by bitter experience in the past, and are not apt to forget the lesson.

This is probably the reason that some concerns are short of second-hands. A better demand, without freer buying to balance it, could have no other result.

Other dealers are able to keep a good stock of the once-despised cast-offs only by taking practically all that are offered at reasonable prices.

Conversation with more than one dealer revealed the fact that this was exactly what was being done. With buyers in plenty, there is no reason why trading-in should not go on without interruption as long as the prices allowed were sufficiently low.

As to the prices asked and obtained for second-hands, they are the most surprising part of all.

In one Chambers street window we noticed a list of such machines the prices of which ranged from \$7.50 to \$50. The majority of them, however, were priced at from \$10 to \$30.

They were nearly all machines of well-known makes, overhauled and put in fair condition. In that shape they were good

value, and their purchasers could scarcely help being satisfied with them.

There is considerable consolation to be drawn from this Renaissance of the second-hand machine.

There was just as much value in it last year or the year before, had buyers only known it. But they preferred to pay the price of a good second-hand for new trash and imagined that they were very good judges of bicycles.

Under the present plan they are pretty sure to fare better in the end.

Wherein the N. C. A. is Weak.

In its treatment of George H. Collett the N. C. A. has given additional proof of a fear or weakness that will sooner or later prove a Loomerang.

Collett, who ran amuck on the track at New Haven, seriously crippling two fellow competitors, was found guilty of foul riding. For this offence he was sentenced to pay a fine of \$75 or remain suspended for the long term of fifteen days. This, following the \$100 fines inflicted on Fred Hoyt and \$25 on H. P. Mosher, for committing the grossest fraud perpetrated in many years, makes fairly plain the attitude of the N. C. A. Contrasted with the \$100 which "Major" Taylor was forced to disgorge for each of his non-appearances, such sentences demonstrate as clearly that the organization holds absenteeism to be a blacker "crime"—at least when committed by a negro—than frauds and fouls—a pitiful confession.

It may be that the N. C. A. officials have permitted the fact to escape them that it was the administration of this sort of timid and jug-handled justice on the part of Albert Mott when chairman of its Racing Board that served finally to disgust the League of American Wheelmen's firmest supporters with its alleged control of cycle racing, and to cause them to welcome the triumph of the N. C. A. If the fact has escaped the latter organization, it is wise that it be recalled and be borne in mind.

The duty of an organization intrusted with the control of anything is to honestly and honorably control it without fear and without favor. It has no right to count the cost. It must do its duty at any and all costs, come what may. In the case of the N. C. A., its highest duty is to keep the sport clean and untainted. This can never be done when a timid, halting, equivocal, what-will-be-the-result policy obtains. When an offence is committed the offender is either guilty or he is innocent. In sport there is no degree of

guilt. It is not a question of creed or color or prominence; there cannot be one punishment for the Jew and another for the Gentile, one for the white man and another for the black, red or yellow, or one for the amateur and lesser lights and another for the shining ones.

When guilt is proven punishments are inflicted for two objects—to prevent repetitions of the offence and to serve as a warning to others evily disposed. When nominal or farcical sentences are imposed neither end is achieved. Such punishments are simply invitations to others to "go and do likewise" at bargain-counter rates.

When the N. C. A. was organized it started in a manner that commanded approbation. Although it takes no cognizance of wagers, and though the race itself was won on its merits, it suspended for life two parties to a "double cross"; the fact that, like Hoyt, one of them was afterward "honest" enough to confess did not mitigate the punishment.

Latterly, however, the N. C. A. appears as if fearful of provoking the wrath or a rebellion of racing men. It handles them as if they were nursing babes, and when punishment is necessary it metes out sentences so inadequate that we have heard them laughed at and derided in a grandstand. It is no secret that the present era of renewed prosperity has partly turned the heads of not a few racing men, who have openly murmured of their ability to conduct their own races and to control themselves. Whether this is responsible for the shilly-shally policy of the N. C. A. we do not know, but the fact remains. It is suspected, however, that this circumstance, coupled with the fact that most of the officials of the organization, by keeping themselves on a level with and being too familiar with the racing men, are not looked up to and do not command the wholesome fear and respect that should exist.

When the N. C. A. was organizing it was given out that it would follow closely the policy of the National Trotting Association. How far short it has fallen of its ideal its present timidity and its farcical punishments demonstrate. There is nothing halting or undecided in the Trotting Association's decisions or its attitude toward horse owners or jockeys. They place themselves on a high plane, so high that, far from being fearful, the drivers hold them in awe or dread. When they deal with frauds and foulers their punishments are effective and far-reaching. Neither sentiment, regard for the offender's prominence or livelihood nor "ifs" or "ands"

influence their actions. When fraud is proven, not only is the jockey banished from the track, but the horse and the owner, and even the get of the horse, go with the rider. It is the one and only way to keep the sport pure. The fact that a man may race on a bicycle instead of on a horse, or that wagers may be affected by his riding, does not enter into the case. Sport must be kept clean at all hazards, and it can only be kept so by an unrelenting policy of "without fear and without favor."

We commend the policy to the N. C. A. Its wavering is unwarranted. Press and public are with and for the honest man and the honest organization every time. We want no more mincing Motts or querulous Gerlachs as administrators of cycle racing, and the cycle track has no room for frauds, fakirs or foulers. In dealing with them there must be stern and unrelenting determination. The man or organization that stops to count the cost of action in such cases is lost and deserves to lose.

Not satisfied with straight front forks and small front wheels, some of the pace followers are beginning to use machines having a slight rearward curve to the front forks. The idea is, of course, to enable them to get still closer to the pacing machine. There is no telling where the movement will end, but the example is pretty certain to be copied. As it is, there is a tendency even now to copy the straight fork fad. Men who ride only short races are using straight forks, and they say they steer quite as well as the usual curved style.

Some people never are satisfied. Many dealers thought themselves terribly oppressed to be obliged to meet the competition of rivals who sold bicycles for \$1 down and \$1 per week. Yet here are dollar watches being sold on instalments with payments of only five cents per week, with nothing down except the first five cents. This shows that there are people who want watches, and yet who cannot pay even such a small sum as one dollar down.

It is rather shattering to the common belief that motor vehicles, and particularly bicycles, are, to put it mildly, possessed of the devil, so liable are they to go wrong, to learn that one such machine went through the Paris-Berlin race, 754 miles, in 32 hours. The veteran French racing man, Rivierre, mounted on a Werner machine, accomplished this performance, finishing ahead of all of the light automobiles.

"BARGAINS" GO BEGGING

Buyers are too Shrewd to Please Price-Cutters—The Wall of one of Them.

"The business is not what it used to be," confided the salesman of a cut-price bicycle establishment to the *Bicycling World* man.

"It used to be that buyers would take anything we offered them, provided the goods were labelled 'bargains.' A \$50 machine for \$19.98 was just what they were looking for, and it did not take much persuasion to convince them that it was all right. They wanted to be convinced, and so it did not take long to strike a bargain.

"Nowadays they are as suspicious as they formerly were confiding. They won't take our word for anything. Proof is what they want now, and it takes a lot of talk to satisfy them that we are giving it to them.

"What makes it worse is that we can't offer them the right kind of goods. They want modern machines—this year's make, or last year's at the outside. They are even willing to pay a little more for them, evidently believing that it is false economy to save a few dollars and get a machine that has been stowed away in a stockroom for years. They want the latest things in construction, and go over a machine item by item, stating plainly the features that don't suit them.

"What makes the matter worse is that we can't get what they want. We have hunted high and low for machines made during the last two or three years, but without success. The market seems to be clear of them. We would pay good prices—much better than we could have bought them for a year or two ago—but no one has any to sell.

"The result is that we have to buy what little there is of the half-dozen-year-old stock left. We are after a lot of 4,000 machines now. The concern making them went down some time ago, and the matter was patched up sufficiently to enable them to go ahead and try to work off this stock. A big effort was made this season, but it failed utterly. The goods were too old-style and the prices asked too high for them to be worked off through the retail trade.

"We are ready to buy them—to take them in a lump and to pay spot cash. But, of course, we must get them low. We can't get much for them at retail, for people will point to various features and ask us why we don't get up-to-date machines. At the same time, the offer is a good one from the standpoint of those having this lot of machines now. They would be foolish to refuse it after they have failed to get rid of them, and I think they will accept.

"Now, look at these machines on the floor. They are modern goods, because we had them made up especially for us. They are going pretty well. We ask \$20 for them, but if we can't get that price we will take less. In fact, no one who really wants a bicycle

and has the money to pay for it need go out of the store without one. It is not often that we let such a person escape, either.

"But, as I said, the business is not what it used to be. We have to work for every sale we make, and they come slower and in smaller numbers than they used to. If things don't improve I'm afraid I shall have to look for another job before long."

The Messenger and the Machine.

One reason why good second-hand bicycles are in more demand than formerly was made plain to a *Bicycling World* man a few days ago. Happening to be in a downtown store, he overheard a conversation between a salesman and an A. D. T. messenger boy who was in the market for a bicycle. The salesman was showing him a Wolff-American, the boy having evidently taken a fancy to it.

"Do you think it will stand hard work?" inquired the boy, anxiously, lifting the machine off the floor as he spoke. "It's rather light, and I have to bang a machine around pretty hard."

"Oh, yes," replied the salesman. "It is a good, strong machine, and will give you good service. It's only a couple of years old, and, as you can see, in first-class order."

"It does seem to be," was the reply. "You say this one is \$10? How about that chain? I see it's only one-eighth inch. Will that stand?"

The salesman thought it would, but he declined to express too positive an opinion about it. However, he was certain that the machine would answer the boy's purpose, and at the price it was a bargain.

"Well, I'll bring another boy around to look at it," was the messenger's conclusion. "I think I'll take it, but I'll get him to say what he thinks about it first."

Colors for the Chinese.

Writing to a foreign contemporary regarding the cycle trade in China, a correspondent at one of the "treaty ports" lays special stress on the point that black enamelling is repulsive to the native. Black is regarded as an unlucky color by the Chinese, and under no conditions will they have any article in that color if it can be avoided. Blue is considered almost equally unlucky. On the other hand, red and white are favorite colors. The correspondent in question asserts that all who seek to do business with China must regard these native prejudices.

An Opportunity in Japan.

The fact that Japan is now one of the best and most promising markets for American bicycles should make the exposition at Osaka March 1—July 31, 1903, a subject of interest to the American cycle trade. The rules governing the affair provide that the articles exhibited shall be those collected, produced or manufactured by the subjects of the empire, or by foreigners residing in Japan. The cost of the exposition is to be paid by the imperial treasury, except the expenses of exhibiting, which will be borne by the exhibitors.

FOR APING AMERICANS

Here's What His Highness has Done—Bicycle for his Heir; Coaster-brake for Self.

British cycle tradesmen must be rubbing their eyes by this time to see if they really are awake. The boom is dead beyond possibility of resurrection, the present slump is perennial, they have been told, told so often that they never think of questioning the assertion.

Yet there is royalty doing its best to bring about a turn of the tide. It was only a few weeks ago that the king presented a bicycle to the heir presumptive. Now he has purchased a tricycle for his own use and had a second—one bought some years ago—modernized and made ready for active service. No wonder the tradesman is looking toward the "upper classes" with mingled wonder and hope, waiting to see where the lightning will strike next.

The importance of this step, the stamp of approval it sets on the "free wheel," and its possible influence on the buying and riding public, will be seen by *Cycling's* comment on the news:

"The rumor proved correct, for the first British King to possess a cycle has gone in for one with a free wheel.

"Some little time ago his majesty noticed that Lord Esher was mounted on a free wheel tricycle, and his interest in it was sufficiently strong to have the following message sent to Humbers' a day or two afterward: 'Let a free wheel tricycle be sent on at once to Marlborough House.' As our readers may know, this type is not ordered every day, and in fact is rarely stocked by the biggest makers. However, it says much for the capacities of the Humber firm when we say that the tricycle was delivered at Marlborough House within forty-eight hours.

"A trial was made, but his majesty did not take kindly to the free wheel at first, but Princess Victoria, who is a true enthusiast, urged its claims, and a third experimental ride fully demonstrated the charms presented by this adjunct to our pastime. Not only did his majesty decide to keep the new machine and the fitment, but also his old tricycle has been converted to a free wheel.

"This machine will be used for riding in town and at Windsor, while the older one will be used at Sandringham. By the way, this older tricycle was purchased in 1896 and was completely overhauled last week. It may not be generally known that it was fitted with a Simpson lever chain, which has now given way to the orthodox roller; other alterations were new chain wheels, free wheel, special front rim brake, in addition to band brake, while it was entirely re-enamelled and replated.

"The step taken by his majesty in adopting the free wheel may reasonably be expected to give a decided filip to the demand for free wheels among the 'upper ten.'"

THEIR OWN FAULT

Some Dealers Expect Business to Come to Come to Them—Little Things.

"The world has a saying to the effect that comparisons are odious, and oftentimes they undoubtedly are, especially to those who are unfavorably compared, either in the cycle trade or in any other walk of life," says an English writer.

"Philosophers would tell us that contrasts and comparisons are amongst the necessary instruments by which we learn, and a moment's reflection is sufficient to convince one of the soundness of this statement.

"Comparisons are frequently responsible for that spirit of emulation to be witnessed on all hands and without which, indeed, the world would be almost at a standstill.

"Now, there are some cycle agents who purchase a few machines, put them in their windows, garnish them, perhaps, with a moderate stock of cycle accessories and catalogs, and do a little advertising in a desultory sort of way. They complain that trade is bad, but never think to look at home for the reason, and if anyone dare suggest a little more enterprise, etc., it is probably received with an ill grace.

"A little while ago we were talking to a prosperous cycle agent in a provincial town, who seemed, so to speak, to touch cyclists from all points. He built machines himself, he held several agencies, he went in largely for the hiring out business, he executed repairs, and he advertised judiciously, extensively and in various ways, even to the extent of having his name stamped on the trouser clips sold by him. Not only this, but his shop was, practically speaking, never closed to a cyclist, any day, any hour, and, finally, if they were touring and asked him to recommend them lodgings, he placed his own house at their disposal. His words to us were: 'I interest myself in them to such a degree that they come to me entire strangers and leave friends.'

"He went on to explain that one at least of the branches of his cycle business did not directly pay, but that it was a means of bringing customers, hence its retention.

"This man evidently had caught the spirit of the showman who made up on the roundabouts what he lost on the swings.

"Some of the methods adopted by the touching-cyclists-at-all-points agents may seem very trivial to those who have failed to adopt them. Those who arrive at this conclusion may be suffering from the sting of unfavorable comparison to which we referred at the outset.

"We are convinced that many agents have yet to learn the importance of little things. Some great man has said that he that disperseth little things shall perish by little and little. This is a quotation we shall not attempt to defend or deny, but we do reiterate

our opinion that there are many agents who do not touch the cyclist at as many points as they might."

Rider's Weight Works Springs.

Attempts to relieve vibration at the front part of a cycle have been many. Both forks and handlebars have been fitted with springs and other cushioning devices, with more or less success—usually less as far as their permanency was concerned.

Two Ohio men, J. K. Boehm and C. R. Waldron, of Ceylon, that State, have invented what they deem something especially good in this line.

"It is desirable," they say, "to support a portion of the weight on the handlebars in order to lessen the shock of the rough places. The invention provides an elastic or yielding pair of handles, which will absorb the vibrations when the cyclist is riding over a rough stretch of pavement, instead of transmitting them to the head and arms, as is the case with a rigid bar.

"The device shows the two inner ends of the bar pivoted to the central head, with segmental gears projecting into the head and engaging the teeth of a vertical rack bar. This rack bar is under spring tension, and when the rider leans forward on the handles his weight overcomes the tension and allows the bar to tilt downward, according to the amount of pressure exerted. At the bottom of the rack bar is a nut, which can be adjusted to adapt the tension of the spring to suit riders of different weight. As the movement of the bars is all in a vertical direction, this device will not interfere with the steering qualities of the wheel."

Preventing Blow-Holes.

According to the Inventive Age, the Krupp Co. has obtained control of a recent German invention for removing oxygen from molten metals—such as steel ingot iron, etc. It is known that oxygen, unless it is prevented from so doing, combines with the carbon, which is always present in the cast metal, to form carbonic oxide, and this combination takes place slowly, even during the solidification of the cast metal, so that blow-holes are likely to be formed. Former attempts to obviate this have consisted in adding aluminum to the metal, which, combined with the oxygen and formed a fine powder; but this latter formed an objectionable impurity in the casting. The new invention lies in a discovery of the fact that the oxygen can be removed by adding to the metal, while molten, an alloy consisting of one or more metals, such as aluminum or manganese, having a greater affinity for oxygen than the metals to be cast, and one or more electro-negative non-metallic elements such as silicon or boron. The alloy absorbs the oxygen, forming a fusible slag, which rises in the form of globules through the liquid metal and leaves this free of blow-holes. In the treatment of steel aluminum and manganese are both employed. This discovery is of value in the production of sound steel castings.

ONE IN 8,000

That was the Proportion of Rejected and Accepted Long-Crank Cycles.

It is possible that the day will come when long cranks and high gears will be given a fair trial. If the future has this in store for this particular constructional feature, the cycling world will then be able to form its own opinion regarding the matter.

The experience of the coaster brake may be repeated. These devices, tried separately, were neglected—it might even be said rejected. Yet when their opportunity came and they were tried in conjunction the former verdict was reversed and they became wonderfully successful. Who knows but the same fate is in store for the long crank and high gear.

The lone concern which is pushing them in England evidently has not abated its faith in them one jot. Its head, writing on the subject, makes a telling argument in support of his contention when he says:

"I am pleased to be able to say that, notwithstanding the adverse criticisms in the press (and I still adhere to my statement that the press have been down on long cranks and high gears, and not given them even a fair chance), I still take up the same position, that no one who has tried a long cranked and proportionately geared bicycle ever gives it up.

"The offer which we make to take the machine back at the end of the month is never accepted. Perhaps I should be wrong in this. Out of 8,000 which we have sold, we have taken one back. We do not know why, neither did we question it; moreover, I am pleased to be able to say that, notwithstanding the position of the press and the bulk of the agents for some unaccountable reason, I am quite satisfied with the result of the year's trading, which should be the best testimonial long cranks and high gears could have."

Insures Both Cycles and Riders.

There are some English insurance companies that make a practice of insuring cycles and riders, either separately or together. The charges are very reasonable, too, especially the rider's share. The annual premiums for such risks are as follows: To cover a machine of the value of \$75, \$3 12 a year, but with the addition of \$2 50 extra \$500, payable if the owner dies within three months of an accident, or \$5 or \$2 50 per week for ten weeks if totally or partially disabled.

Paris Pawnbrokers.

Cablegrams from Paris state that the administration of the Mont de Piete (the pawnbrokers) is much concerned over the lack of demand for second-hand bicycles, of which there are thousands in pawn.

At an auction sale recently, excellent machines were offered at 25 f. to 50 f. \$5 to \$100, and did not find purchasers.

KNOW HER BOOK

Why the Girl and Her Money Were not Parted—Then he Talked Motorcycle.

To say that "the king is dead, long live the king!" reference being had to the pedal-driven and the motor-propelled bicycles respectively, is to go entirely too far.

But it is within bounds to say that the novelty of the former vehicle has passed off. It is, and always will be, used extensively for business purposes and as a superior means of transportation; to some extent also this remark is equally applicable if the bicycle be regarded as a pleasure vehicle. But the old enthusiasm—it might be called "craze"—is gone, as far as the great mass of riders are concerned. Like all crazes, it had its day, and the fact that the bicycle has not gone with it is proof conclusive that it is an essential part of the modern economy.

A conversation between a dealer and a customer, overheard by the *Bicycling World* man, makes both this and the point about motor bicycles plain.

The customer was having an argument with a customer—a young girl—about the trade of a second-hand bicycle for a new one. The latter was listed at \$40, and with an allowance of \$10 for the old machine there would be \$30 difference to pay. This was explained, but the girl claimed that she had been told that there would be but \$20 to pay. She asserted in the most positive way that the dealer had offered to take \$20 for the new machine, and she was ready to pay the money and take the wheel.

For a while the dealer tried to convince her that she was mistaken, that he had not given her these figures, but had asked \$30 difference. Finding that she could not be convinced, he was compelled to try another tack. He said that he was sorry a misunderstanding had occurred, but that he must get \$30 and the old machine or he could not let the new one go.

That settled the matter, temporarily at least. The girl said that she could not pay the extra \$10. She had saved \$20 and was ready to pay that much, but she would have to wait for the remainder, and she was not at all sure that she would want to make the deal at the new figures.

"I don't believe I use the bicycle enough to make it worth while to pay \$30 difference," she said. "I don't ride it as much as I did when I first got it, and \$40 is a lot of money to pay. In a few years it would be out of style, or something better would be on the market, and I would be just as badly off then as I am now. However, I will see when I get home whether I want to do it."

"But it would be such a handsome wheel and run so much better than your old one that you would ride it oftener," urged the dealer.

"Oh, no, I wouldn't," was the reply. "They

told me all that about the one I have now, and the new one would not run any better or take me up hills easier than the other. No, I don't think I shall do it."

"What you ought to do," said the dealer persuasively, "is to let me put a motor on your old wheel. Then you would have no troubles on hills."

"A motor?" repeated the girl, slowly. "Yes, I've heard of them. How much would one cost?"

"Oh, about \$100. I could fit one to your bicycle, and you could go wherever you pleased without effort. It would do the work, instead of your having to tire yourself and get heated doing it."

"Well, I don't know whether I would be able to get the money," said the girl. "But I will think it over and let you know."



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

Traded Store for Farm.

"Swapping," whether the articles "swapped" happened to be horses or less deceptive things, is an inborn habit with the rural American.

He indulges this propensity whenever the opportunity offers, and whether he gets the best or the worst of it he is always ready to tackle the game again.

A "swap" out of the ordinary, however, was one made in Paris, Ill., a short time ago, as related elsewhere. The proprietor of a bicycle store "swapped" it for a 130-acre farm. He proceeded at once to take possession of his property, while the ex-farmer assumed charge of the store.

It is not easy to say which appears to have the best of the bargain. From farming to bicycle selling and repairing is a far cry, and the story does not relate whether either man possessed any qualifications for his new position. Both of them will get a change—both of air and occupation.

The embryo cycle dealer, however, has secured the support of the local newspaper. The latter says he is "an affable young man, who is desiring of success, and he has our best wishes in his venture."

TIRES THAT TROUBLE

They are Made in England and Used on Motorcycles—Spurious DeDion Parts.

London, July 17.—Some grievous experiences have reached me this week from a friend who has been touring on the South Coast and using a motor tricycle. The roads in that district are never very good, and in summer—and especially when the weather is abnormally warm—they get very loose. My friend went away on a nearly new machine, which had not been more than 500 miles, and he writes that his tires are practically done for. In one day he had two bursts, and the fabric appears to have perished. He remarks that touring upon a motorcycle is a pastime only fitted for the wealthy, if his experience goes for anything. He reckons that he has done \$50 worth of damage to the tires alone, to say nothing of the wear and tear upon the machine.

Now, this tire question is really getting a very serious matter, as there appears to be no tendency to grapple with the difficulty or to lower the price of tires so that the loss might at any rate be reduced. Fancy damaging the tires to the extent of \$50 in less than a thousand miles! And this upon English roads, which, though occasionally loose, are by no means bad as a whole. The majority of the motor papers are taking up the question, which is a right move, and may influence the tire manufacturers to take some steps to remedy the evil.

It is a regrettable fact that at the present moment a good deal of motor rubbish is being imported and palmed off on the public, mostly for the replacement trade. Thus it happens that a very large number of alleged De Dion parts are being sold which are not really made at the De Dion works. I am not saying that there is any particular virtue in a genuine De Dion part, but as a matter of fact these particular imitations are very inferior and are sold at cut prices. Good imitations of the De Dion parts can be obtained, and at a considerably less cost than the genuine parts, but still not at cut prices. There are plenty of De Dion pattern ignition cans sold now at about 15 cents, and these wear out directly, the hardening being very defective and the metal inferior. On the other hand, there is any quantity of really good stuff obtainable at a fair price, but the public are not always discriminating in these matters and are apt to look at initial cost.

How the Coloring is Done.

The tempering and coloring of chain link blocks and other small steel parts is a very interesting operation. The heating is usually done in a gas furnace especially constructed for the purpose. The work is performed by subjecting the pieces to the action of sand or ground flint, heated to the proper degree required for any grade of temper, and a bright, clean and perfectly uniform temper color is obtained when the work has been properly prepared for coloring by thorough cleansing.

The Retail Record.**NEW STORES.**

Alvin, Tex.—Slover Bros.
 Mason, Mich.—Frank Drake.
 Hicksville, O.—S. G. Fletcher
 Rockford, Ill.—D. J. Hummel.
 Mulhall, Okla.—Albert Justice.
 Lyons, N. Y.—William H. Kline.
 Homer, Idaho.—H. A. Bottomly.
 Adams, Mass.—Kearn & Powers.
 Shakopee, Minn.—Glenn Kennedy.
 Allendale, S. C.—G. W. Woodruff.
 Bay City, Mich.—Kigel Bros. & Co.
 Big Bend, Wis.—Whitney Stratton.
 Chicago Heights, Ill.—A. Bourassa.
 Plainfield, N. J.—Nelson Van Winkle.
 Albert Lea, Minn.—W. E. Marchant and
 Walter Christensen.
 Chicago Heights, Ill.—Jacob Keilman, 32
 Main street, repairing.

CHANGES.

Campello, Mass.—Edward Pratt, retired.
 Lyons, Ia.—George Riggs succeeds H. L.
 Traub.
 Moline, Ill.—Gus Sheppard succeeds Moses
 Ross.
 Bushnell, Ill.—Ross Ball Brothers succeed
 Ball Bros.
 Gouverneur, N. Y.—Walter Lytell succeeds
 Dwight Bacon.
 Nashua, N. H.—A. C. Pollard succeeds N.
 W. Tarbell & Co.
 Wichita, Kan.—H. H. Hess & Co. succeeds
 Musselman Bros.
 Fair Haven, Vt.—Walter I. Smith has pur-
 chased the bicycle business of the Norton
 Company.
 Bay City, Mich.—Arthur Thorp succeeds
 Thorp & Carey, having purchased William
 Carey's interest.
 Paris, Ill.—Paris Bicycle and Plating
 Works; C. H. Anderson has purchased the
 business from C. F. Probst, giving a 130-
 acre farm in exchange.
 Leavenworth, Kan.—Leavenworth Cycle
 Company. The proprietors, George W. Combs
 and August L. Schott, have dissolved part-
 nership, Mr. Schott continuing.

FIRES.

Watervliet, N. Y.—J. Gray, Sixteenth
 street; slight loss.
 New Britain, Conn.—William Samuelson,
 partially insured.
 Meriden, Conn.—A. M. Shepard & Co., No.
 6 Crown street; loss about \$75; insured.

Has a Flanged Sprocket Wheel.

One of the most prolific sources of trouble
 with multicycles has always been chain
 breakages or similar troubles. As a rule, the
 fracture was caused by too great or uneven
 strain on the chain. But occasionally it
 would jump the sprocket wheel or be caught
 by the crank. In a motor tandem examined
 by The Bicycling World man recently the
 latter two causes were effectually guarded
 against by the use of what can best be de-
 scribed as a flanged sprocket wheel. Two
 steel rims inclosed the part of the chain en-
 gaged with the sprocket wheel teeth in such
 a manner that it could not possibly jump.

Recent Incorporations.

Philadelphia, Penn.—The Hart Cycle &
 Automobile Co., with \$50,000 capital; \$1,000
 paid in. Incorporators, Josiah G. Reeve, of
 Camden, N. J.; Samuel H. Avis, of Palmyra,
 N. J., and Gertrude Hart, of No. 4,022 Bar-
 ring street, Philadelphia.

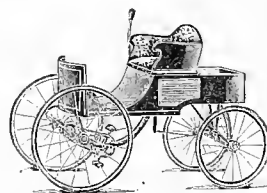
Buffalo, N. Y.—Aerio Cycle Co., with \$7,000
 capital. Directors, E. S. Bundy, F. W.
 Thompson and C. B. Sears, of Buffalo.

Springfield, Ill.—Elder Patent Tire Co.:
 capital, \$5,000. Incorporators, Samuel S. El-
 der, James W. Jefferson and John C. Lamb.

Here's a Pedal-Propelled "Automobile."

For an ingenious application of the "bi-
 cycle idea" it will be difficult to find any-
 thing more attractive and up to date than the
 child's automobile made by the Toledo
 (Ohio) Metal Wheel Co., and shown by the
 accompanying illustration.

So cleverly is the scheme worked out that



it requires more than a passing glance to
 discern that the little automobile is fitted
 with pedals instead of a motor, and that
 the lever at the side is not more than a
 simple steerer of the rear wheels. The de-
 vice is not a mechanical toy, as the picture
 may make it appear, but is large enough for
 the use of a child of some size; the rubber-
 tired wheels are 20 and 16 inches respec-
 tively and ball bearing; the body is 25 inches
 wide, 37 inches high, and from the ground
 to the top of the upholstered seat the little
 vehicle measures 30 inches.

The Toledo people have carried this "bi-
 cycle idea" into several other novel creations
 for children's use—a locomotive, a tandem
 buckboard, a velocipede horse, a velocipede
 delivery wagon and several other wheeled
 vehicles.

The sale of diminutive wheeled goods of
 the sort should dovetail nicely with the sale
 of bicycles, and should therefore hold interest
 for the dealer who seeks side lines. The To-
 ledo Co.'s products are so novel that as
 birthday or holiday gifts they should be in
 considerable demand. Their catalogue illus-
 trates the entire line and is well worth ob-
 taining.

Judge Dismissed Case.

Charles F. Simpson, a bicycle dealer of
 No. 203 Halsey street, Newark, N. J., last
 week appeared before Judge Lambert, in the
 First Precinct Police Court, as complainant
 against Louis Wurth, also a bicycle dealer,
 with a place of business at No. 26 William
 street, whom he accused of having taken six
 bicycle bells from his shop July 13. Judge
 Lambert told Wurth to return the bells and
 dismissed the case.

Difference in Bevel Gears.

There are bevel gears and bevel gears. The
 distinction is most marked between the ordi-
 nary bevel gears of the machinery trade and
 those used for driving bicycles. It is no ex-
 aggeration to say that the latter put to
 shame anything previously turned out. They
 made the impossible possible, the nume-
 rical mechanical, the long derided bevel
 gear drive for bicycles an actuality.

But there is also a difference between
 bevel gears for bicycles. Some are good,
 others are superfine. The many operations
 through which they pass in their progress
 from the blank to the finished gear repre-
 sent many triumphs of inventive genius.

This is especially true of gears that are
 cut after hardening. These gears are first
 turned, bored, milled, carbonized and hard-
 ened, and are then put through a patent
 generating process, which produces teeth of
 the correct theoretical contour, uniformly
 spaced, making not only a gear of almost
 absolute accuracy, but one of the greatest
 durability as well.

Pushing Brings Results.

Under the caption "The Pushful Yankee"
 the Scottish Cyclist prints an extract from a
 letter sent it by an employe of a British
 cycle concern at Singapore.

"The Americans," complains this writer,
 "are working very hard indeed to get a
 hold of this market with their machines, and,
 considering the attention which they give to
 their agents, I am not a bit surprised at the
 way they are gradually creeping in, not only
 in bicycles, but in everything that is at all
 suitable for this place. I know from our
 own transactions that the Yankee is far
 ahead of the English firms for attention.
 They keep us posted to the very latest of
 everything, whereas we get news perhaps
 once a year from some of the home firms
 with whom we could place a few thousand
 dollars should they buck up. It's an old
 saying, 'First come, first served.'"

Plating With Aluminum.

Though we have learned how to solder
 with aluminum, plating with it has always
 presented many difficulties, which, however,
 are said to be overcome by a recent German
 invention, says the Inventive Age. Accord-
 ing to the inventor, aluminum and copper
 cannot be directly united by heat, as alumi-
 num melts at a much higher degree than the
 other. The inventor therefore uses a very
 thin foil of aluminum, which he presses
 upon copper, so as to prevent oxidation of
 the latter, and then beats it; this forms an
 alloy in which copper predominates, and to
 which a thicker foil of aluminum will ad-
 here. The same process may be applied to
 other metals of widely differing melting
 points; for instance, iron, steel or zinc may
 be plated with aluminum, and the latter
 with copper. Light electric conductors of
 aluminum can be prepared with a good con-
 ducting shell of copper.

SALESMEN WHO SUCCEED

Ability to Read Mankind and to Exercise Tact Prime Requisites—Other Qualities.

The young man who is making his way through the world, depending upon his energy, industry and intelligence to lift him higher, must not neglect to cultivate the study of mankind. No matter how efficient he may be in other qualities, if he is not a judge of men he is doomed to failure.

A man must possess the faculty of winning the confidence of other men and of making them his friends if he would be successful in any way. This faculty, or gift, is born with some. They touch a sympathetic chord in every one they meet, are given a hearing when more worthy men are turned away, and succeed along their chosen lines when men of immensely greater ability plod along at the foot.

If we say they possess tact, we only half express it. Tact is saying and doing the right thing at the right time to the right person. Tact prevents blunders that would make enemies, but does not necessarily make friends. Tact is the form, but the feeling lies deeper down. To make friends, tact must be present, but the heart only can tie the knot of friendship.

The strength of youth is its unlimited hopefulness. Success is just around the corner; in a few years, at most, she will be overtaken; then come ease and luxury! The great majority of those in the race never catch a glimpse of her robes, and the ones who lag furthest in the rear are those whose manners were so unsympathetic or forbidding that the men who could and would have helped them refrained, perhaps at the critical moment, from saying the word or doing the thing that would have advanced them.

I am at this moment interested in a man who is out of work and who is struggling bravely to find a position, says W. H. Maher in the Saturday Evening Post. When he is not near me I study how I can help him, and canvass friends who may need a man and who would give my recommendation some weight. But when he comes to see me he has not talked five minutes before I begin to think that I wouldn't want him near me all the time; and, feeling so, I wonder if it is right that I should commend him to others. He has not tact. He does not permit me to get half way through a sentence before he interrupts me to agree with me, while he proceeds to finish my sentence in an entirely different way from what I had intended. I conclude that it is not worth while to go back and finish in the way I started out to do, so let it go as he left it, but I do not volunteer any further remarks. When he goes away I still wish as much as ever that he was at work, but I am hop-

ing that he will find a place without my having to make a special recommendation.

Every young man with the competition of life around him should probe deep down into his own soul and learn for himself just what is the measure of his capacity to win the good will of other men. He should be absolutely honest with himself, listening to no flattering tale, but facing the truth fearlessly.

I recall another young man who was visiting in a city for a few days and was taken by his host to call upon the head of a wholesale house that he might see how business was done in that busy place. The young man and the merchant talked together for an hour, and the latter drew from the youth the story of his life thus far and his aspirations for the future. That evening the merchant called upon the host, and as he took his leave particularly requested the young man to call upon him in the morning. He then said:

"Some remarks you made yesterday kept repeating themselves to me after you went away. I think you are possessed of the spirit that succeeds. I want a man in my office; if you wish to take hold you may."

The offer was promptly accepted, and neither man ever had cause to regret it.

As any man studies his relations with other men, and analyzes the position in which he holds those whom he meets in either a social or business way, he must confess that he divides these into two classes—those who attract and those who repel him. There is a small percentage to whom he is indifferent, but the great majority are in the two classes I have named.

A man who intends to succeed must have friends. These are not to be bought or borrowed ready made; they must be evolved out of the men and women whom he meets, both in social life and in business. How shall he do this? I know of no better rule than that given in Proverbs: "A man that hath friends must show himself friendly." If this was given as a rule by which a man shall keep his friends, much more is it the law to be adopted by which one shall create friends for himself.

The result of the efforts to make friends is no less important to the clerk in the smallest hardware store than to the salesman in the largest wholesale concern. Both rise or fall by their power to please their employers and customers.

When I miss my favorite clerk at the hardware store I am quite prepared to hear that he has started in business for himself. All who dealt with him liked him; many have promised that if he started for himself they would give him their trade, and have followed him. His capital in friendship is far more valuable to him than his dollars.

The salesman who has been calling upon me for years, and who has won my regard, now tells me he is travelling for himself, having started in business with a partner, and he is certain of my trade to as great an extent as I can give to him.

There is a class of people who make

friends easily, but who do not hold them. If they are travelling salesmen their first trip is usually a good one, but each succeeding trip grows poorer until they are dropped. It does not seem to be because they are insincere, but because they do not wear well. All that there is in them is on the surface.

There are others who are much too friendly in appearance on short acquaintance. They ask about trade with such gravity of tone as if they had come these hundreds of miles to get the answer to that one question. You feel that they are acting a part, and you are not complimented that they should think that you are deceived by it.

By far the larger portion of mankind can think only of themselves; the I. with them, is so extremely large that they spend most of their thought and time in efforts to impress the world with a proper sense of their fancied importance. A person belonging to this class can never forget himself long enough to take an interest in his auditor. He not only lacks tact, but he is wanting in common shrewdness.

The interest that makes friends must be both kindly and honest. The clerk and salesman must forget himself; must think only of the one purpose, to make the person his friend. This is not accomplished by fawning upon men, nor by echoing their opinions, but by an intelligent acquaintance with human nature that pushes one's self into the background and sees and brings out the best in others. He must follow out the injunction laid down for keeping friends and "show himself friendly."

One Dozen Maxims from Abroad.

The president of the London Chamber of Commerce says that his business career has been guided by these twelve maxims:

1. Have a definite aim.
2. Go straight for it.
3. Master all details.
4. Always know more than you are expected to know.
5. Remember that difficulties are only made to overcome.
6. Treat failures as stepping stones to further effort.
7. Never put your hand further out than you can draw it back.
8. At times be bold; always prudent.
9. The minority often beats the majority in the end.
10. Make good use of other men's brains.
11. Listen well; answer cautiously; decide promptly.
12. Preserve, by all means within your power, "a sound mind in a sound body."

Motor Tricycle for Mail Collection.

Experiments have recently been conducted by the Syracuse (N. Y.) postoffice authorities with a Stearns motor tricycle for the collection of mails. Collections have been made from fifty-four city letter boxes in one hour and ten minutes, instead of in three hours, the time ordinarily consumed in collection by wagon.

RACING

Never was the "glorious uncertainty" of the motor-paced game more strikingly shown than at Manhattan Beach on Saturday last. Elkes, the clear-cut victor of the previous week, went down before Walthour, and was taken from his machine when the race was nearly three-quarters run, scarcely able to stand. The featured event was a 50-mile race, four cornered, Walthour, Moran, Ross and Elkes being the contestants. Elkes and Moran had had a similar race the night before, in which the ex-milkman was badly beaten. Undeterred by this, however, he and Elkes went at it hammer and tongs from the start. Ten miles of this and Moran "cracked," giving way to Walthour, who had been nursing himself within easy distance of the leaders. At the 17th mile the Southerner went to the front at a terrific gait, Elkes, weakened by his previous exertions, making scarcely an effort to hold his lead. From this point on Walthour rode at a pace that was the wonder of all who beheld it. Mile after mile he reeled off like clockwork, although he was far in the lead, finishing the 50 miles in 1:22.29 3-5. With 3 miles to go Walthour's pedal broke, necessitating a change of machines. Moran recovered some of his form and rode steadily, finishing but 6 laps to the bad. The final of the half-mile championship was a beauty. "Major" Taylor treating the spectators to a fine exhibition of Parisian tactics. After literally crawling for three-quarters of the distance, the negro jumped like lightning, got the lead and won by inches, with Kramer coming up fast. Time, 2:58 3-5. The 5-mile handicap was also a magnificent race. Gascoyne sprinted almost an entire lap and appeared to have a mortgage on first; but Fenn, starting from scratch, made an even finer effort, and nipped the Englishman at the tape, pushing his little blue National across the line first.

Excitement at the expense of good racing fell to the lot of those who attended the Monday night meet at Madison Square Garden, New York, on July 29. Nelson's illness spoiled the motor-paced race scheduled, Ross proving no match for Moran in a substituted 5-mile event. Then Fenn shut out Kramer in their heat of the National Circuit championship, thus preventing the latter from meeting Taylor, while Fenn fell an easy victim to the speedy "Major." The excitement was furnished in the mile handicap. Cooper was at scratch in the first heat, and almost simultaneously with the pistol fire his tire blew up. Instantly there was confusion. One indiscreet official called to the men to stop, while others said to go on. This they did, and then ensued a discussion as to whether Cooper should be permitted to start in a subsequent heat. This terminated by Referee Valentine deciding that the heat should be run over, with Cooper in, whereupon the three winners refused to ride again

and lodged a protest. The heat was run, however, again with them refusing to start, and they were not allowed to enter the final. Cooper was unplaced in his heat, and Downing, Kimble and J. Coburn crossed the tape in that order in the final. In the confusion incident to all this the audience took an active part, taking Cooper's side. The rules are very plain regarding the disputed points. If Cooper's tire blew up after the pistol fire the rule expressly states that he could not enter another heat. If it was the other way the referee is authorized to permit him to start later if he thought such action desirable. In running the heat over the gravest mistake of the evening was committed. There was no warrant for such action.

Another Southerner flashed across the cycling firmament at Vailsburg, N. J., on July 28, with Tom Eck as his sponsor. This was Ben Munroe, formerly of Memphis, Tenn., who has been riding with more or less success, generally less, for several years. In the second heat of a 5-mile motor-paced race against King he went for world's records and got them. With a flying start he reeled off the distances in this style: First mile, 1:31 2-5; second mile, 3:01 2-5; third mile, 4:30 2-5; fourth mile, 5:59 3-5; fifth mile, 7:27. Incidentally, he disposed of King in hollow fashion, notwithstanding the latter stuck to his task gamely. A record-breaking batch of starters lined up for the 25-mile amateur race, and seventeen of the more than half a hundred were in at the death. Edwards, of Brockton, had a good lead coming into the straight, but he was just beaten out at the tape by inches by Edward Forrest, of Brooklyn. Menus Bedell, Billington and Losee got third, fourth and fifth places, respectively. Time, 1:00 1-5, beating record by 3 minutes.

Instead of motor troubles, punctures had their innings at Charles River Park, Boston, on July 26, when Elkes, Champion and Moran competed in a 50-mile race. Elkes suffered two of these unpleasant mishaps, and thereby almost lost the race. Moran "cracked" early in the contest, and was 5 laps behind at the finish. Champion gave the Iver Johnson rider a hard fight, however, and with the punctures' help almost succeeded in beating him. In the 31st mile, with Elkes 2 laps to the good, the first puncture came. By the time Elkes had changed wheels and was behind his pacing machine again Champion was but half a lap in the rear. Again, in the 48th mile, when Elkes had added 2 laps more to his lead, the same thing happened, and, as before, the Frenchman almost made up the distance. Elkes was able to hold him off, however, and won the race, his time for the 50 miles being 1:20.02 4-5, as against Champion's 1:20.22 1-5.

Bad luck in the matter of pace had a great deal to do with Michael's defeat at the hands of Elkes at Springfield, Mass., on July 25. The men started from opposite

sides of the track, and Elkes gained a slight lead at the start, but never got away more than a few yards until the seventh mile was reached. At this point Michael's pacing machine went wrong, and before the spare one could connect Elkes had gained a lap and had the race won. Michael's second machine was not in perfect order, and it could not take him fast enough. Seeing this, Elkes gracefully loaned the Welshman his extra machine, which did better. In spite of this Elkes added a little to his lead, crossing the tape 2½ laps to the good in 4:24 2-5. Perry won a 5-mile pursuit race over Alexander; time, 11.41 4-5.

Extremely unsatisfactory was the ending of the 15-mile motor-paced race at New Haven, Conn., on July 23, between Cadwell and Fenn. The cause of the trouble was a foolish agreement that in case one motor-paced machine went wrong at any time during the race the latter should be stopped until the machine was put to rights. It is claimed that on several occasions when Fenn had the advantage Cadwell's machine conveniently went wrong; consequently Fenn's victorious career was cut short. In the end Cadwell got a lead of about half a lap, and won by that distance. He was roundly hooted, while Fenn was as vigorously cheered. The time was 23.33 4-5.

In a rather uninteresting race at 25 miles Stinson again defeated Nelson at Charles River Park, Boston, on July 23, lapping him at 13 miles and being nearly a mile to the good at the finish. The race was motor paced, and Edward Taylore was to have participated. He is suffering from malaria, however, and his team mate, Dner, of Buffalo, was substituted. The latter was entirely outclassed, having nearly three miles to go when the end came. Stinson's speed is evidenced by his annexing the world's 2-mile record, his time being 3.12 1-5, and the track record for 25 miles as well. The new figures are 38.21, as against 39.07.

Those old rivals, Michael and McDuffee, were pitted against each other at Revere Beach, Boston, on July 27, and the Welshman came out first best. The race was at 20 miles, motor paced, and was won by Michael with a margin of 7¼ laps. Time, 33.05 3-5. The story is soon told. Michael rode with precision and without apparent effort, while McDuffee had trouble in following his pace. The latter lost steadily almost from the pistol shot. Motor troubles at the 19th mile added to his woe and lost him three laps.

As a result of journeying to Dayton, O., last week, Nat Butler is \$500 richer. That was the winner's prize in the 12-hour race which closed on July 24, and Butler proved to be the fortunate one. Earl Kiser was second. The distance covered was 256½ miles.

One of cycling's classic records—the hour—has been put up a notch. Incidentally, its abiding place has been shifted, and a Tanton, Robi, now wears the honor which for nearly a year graced Stinson's brow. At Leipsic on July 7 the German covered 40 miles 1,250 yards in the hour, defeating Dickentmann, who retired at half distance owing to pacing troubles. The former record, Stinson's, was 40 miles 330 yards.

In the presence of over 6,000 people "Major" Taylor won the one-half mile championship at the National Circuit meet at Washington, D. C., on July 24. Freeman was second, having shut out Kramer in their heat, while Taylor performed a like feat with Cooper. In the latter heat the men managed to consume 4.14 3-5. Jacobson, who seems to have a "cinch" on such events, won the mile 2.10 class race.

One mile and two laps separated Moran and Ross at the finish of the 25-mile motor-paced race between these men at Providence, R. I., on July 24. Ross struggled to hold his own, and was fairly successful in the early part of the race. But he was unable to hold his pace as well as Moran, and in addition got a fall which lost him three laps. Time, 40.01 3-5.

A well arranged and successfully carried out attack on the mile record for a 6-lap track, motor paced, was made by Stinson on his Orient at Providence, R. I., on July 26. On the second attempt he covered the distance in 1.24 1-5, displacing McEachern's 1.27, made at Baltimore last year.

In a ding-dong race, hotly contested up to the last mile, and with not an accident to mar it, Stinson beat Nelson at Charles River Park, Boston, Tuesday night. The distance was 25 miles, and Stinson's time was 39.30. Nelson had the lead for fully half the distance.

May Come 'Round After a While.

Chainless bicycles have had a much harder row to hoe in Great Britain than even here. Trade, press and public united in setting their faces against them, and the preconceived prejudice against them has been little more than shaken.

This prejudice was largely responsible for the collapse of the Acetene Company, which took place some little time ago. Since then the Quadrant has had to make the fight alone, and an uphill job it has been. There appears to be no doubt, however, that it is making decided progress. Sales steadily increase, and the feeling toward the chainless gear—as embodied in the Quadrant, at least—is slowly becoming more favorable. By and by, perhaps, British critics will admit that such gears are mechanical and in no wise inferior to chain driving.

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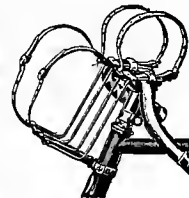
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The Week's Patents.

678,963. Motorcycle. George W. Manson, New York, N. Y. Filed Nov. 17, 1900. Serial No. 36,848. (No model.)

Claim.—1. The combination of a bicycle, having a frame constructed in two connected sides, each consisting of longitudinal bars one above another, inclined upward and forward in front and converging to the tubular head; and a motor mounted between the said side frames, substantially as herein shown and described.

678,992. Machine for Cleaning Tires and Rims of Wheels. Thomas L. Barlow, Boston, Mass. Filed Dec. 20, 1900. Serial No. 40,576. (No model.)

Claim.—1. In a machine of the character described, a trough; a pair of substantially horizontal rolls mounted therein and adapted to receive or support the wheel of a bicycle; a pair of stationary brushes secured in substantially vertical positions within the trough at a sufficient distance apart to allow a tire to be moved between them; and mechanism for operating one of said rolls and thereby rotating a wheel supported by said rolls between the brushes, substantially as and for the purpose set forth.

679,001. Automatic Brake. Johnson Hughes, Wissahickon, Pa. Filed Jan. 28, 1901. Serial No. 44,954. (No model.)

Claim.—1. In a brake mechanism, a revolvable shaft, a wheel having a clutch jaw revolvable on said shaft, a sleeve having a clutch jaw revolvably fixed but longitudinally movable on said shaft, said wheel being adapted to revolve said sleeve and to move the same longitudinally, a brake, and mechanism connecting said brake and sleeve whereby the application of said brake is automatically adjusted, substantially as specified.

679,041. Electrical Sparking Device for Explosive Engines. Richard Varley, jr., Jersey City, N. J. Filed Oct. 5, 1900. Serial No. 32,127. (No model.)

Claim.—1. An electrical sparking device embodying a pair of separated conductors having terminals separated by a spark gap, and insulating means embodying juxtaposed insulating elements the meeting faces of which engage said conductors, and form therewith a tight joint.

679,043. Pedal. Max F. Wirtz, Dunellen, N. J. Filed Aug. 29, 1900. Serial No. 28,449. (No model.)

Claim.—1. In rat-trap, and similar pedals for bicycles, a detachable foot rest composed of a sheet-metal core or body bent into substantially the form shown, and with a single centrally projecting ear or tongue provided with an elongated opening to receive a securing screw, the core or body coated or covered exteriorly with rubber, substantially as and for the purpose set forth.

679,053. Vaporizer for Explosive Engines. Lawrence M. Johnston, Dayton, Ohio. Filed June 5, 1899. Serial No. 719,511. (No model.)

Claim.—1. In an explosive engine, the combination with the engine, a supplemental receiving chamber and a mixing chamber, the one above the other; an inlet valve seated in the dividing wall between said chambers, a supply valve in the wall of said supplemental receiving chamber vertically opposite said inlet valve, a liquid supply tank, a pipe connection between said tank and said supply valve, means for operating said inlet valve, means for operating said supply valve from said inlet valve, an opening leading into said mixing chamber, a separate opening leading from said mixing chamber to the

cylinder of the engine and a valve seated in said separate opening, substantially as specified.

679,060. Hub for Friction Clutches. John McCaffrey, Lawrence, Mass. Filed Feb. 25, 1901. Serial No. 48,656. (No model.)

Claim.—1. A hub of the nature described comprising a bearing cone having a diametrically enlarged member furnished with a lubricant reservoir, the bearing having an annular groove in its end and inclined channels connecting the groove with the reservoir, and a thrust collar adapted to cover said groove and having inlets connecting therewith.

679,082. Velocipede Frame. Emmit G. Latta, Friendship, N. Y. Filed Feb. 3, 1900. Serial No. 3,780. (No model.)

Claim.—1. The combination with a velocipede reach, of a crank-shaft hanger having in its upper side a transverse opening which receives the lower side of the reach and provided around the entire edge of said opening with an outwardly extending integral flange which surrounds and incloses the bottom and the sides of the reach, substantially as set forth.

679,086. Bicycle Handle Bar. Louis L. Luce, Mount Vernon, Wash. Filed Nov. 26, 1900. Serial No. 37,824. (No model.)

Claim.—1. The combination with a handle-bar post having a split terminal ring, of an extension link removably connected to the post through the medium of the split ring, and a handle bar including a central section removably connected to the link and end sections adjustably connected to the central section, said central section being adapted for connection with the split ring of the post interchangeably with the link.

679,217. Device for Inserting Inner Tubes into Pneumatic Tires. William H. Crabtree, Dorrance, Kan. Filed May 10, 1901. Serial No. 59,630. (No model.)

Claim.—1. A device of the class described, comprising a steel tape having one end turned over or coiled and bearing a guide member, and a clamp attached to the other end of said tape, substantially as described.

679,243. Sparking Igniter for Explosive Engines. Schiller A. Rhode and Jacob Dubord, Manitowoc, Wis. Filed Aug. 9, 1900. Serial No. 26,431. (No model.)

Claim.—1. In an explosive engine, electric contacts, one fixed and the other movable, a post journaled in the cylinder and carrying the movable electric contact, a rock shaft journaled in a side of the cylinder, a rocker bar attached to the inner end of the rock shaft, a pin adjustably connected with the piston and adapted to strike the rocker bar, a stop having adjustable connection with the cylinder and serving to hold the rock shaft in a given position, and exterior connections between the outer end of the said rock shaft and the movable electric contact, substantially as set forth.

679,263. Mixing and Controlling Device for Gas Engines. Ransom E. Olds, Lansing, Mich. Filed April 21, 1899. Serial No. 713,948. (No model.)

Claim.—1. In a gas engine, the combination of a gas nozzle, a surrounding casing forming an annular air-inlet passage to the cylinder, a disk valve covering the end of said nozzle and having an annular marginal portion projecting beyond the same into the path of the incoming air current, but being of lesser diameter than said surrounding casing, and a spring for closing said valve, whereby said valve will be opened by the incoming air current and the degree of open-

ing thereof will vary according to the velocity of said current.

679,283. Bicycle Driving Mechanism. Marion L. Nichols, Westfield, N. J., assignor to the Evolution Cycle Co., Washington, D. C. Filed April 22, 1897. Serial No. 633,388. (No model.)

Claim.—1. In a bicycle, the combination with a crank shaft, of a gear wheel rigidly mounted on said shaft and located about midway between the bearings thereof, a transmitting shaft mounted in the tubular frame, a bevel gear mounted at the forward end of said shaft and meshing on its inner side with said gear on said crank shaft, a bracket secured to the rear end of the tubing in which said transmitting shaft is mounted, a spindle mounted in said bracket, a combined spur and bevel gear mounted on said spindle, a bevel gear mounted on the rear of said transmitting shaft and meshing on its inner side with the bevel portion of said combined gear, a gear mounted on the hub of the rear wheel and meshing with the spur portion of said combined gear, substantially as described.

DESIGNS.

34,832. Hub for Friction Clutches. John McCaffrey, Lawrence, Mass. Filed Feb. 25, 1901. Serial No. 48,856. Term of patent, 14 years.

Claim.—The design for a hub for friction clutches and similar machines as herein shown and described.

TRADEMARKS.

36,815. Self-Propelled Carriages and Wagons. Robert H. Hemphill, Hattiesburg, Miss. Filed June 26, 1901.

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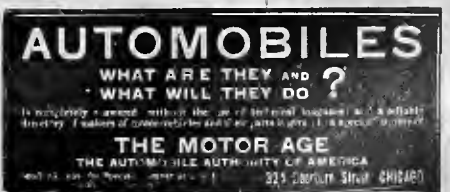
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JOBBER'S AND THE STEEL RIM

From **THE BICYCLING WORLD**, January 3, 1901.

While steel rims are still fitted to not a few American bicycles designed for foreign use, the sight of a wheel so fitted for use at home is so rare as to excite remark.

That there has existed even a modest demand for steel rims for domestic use has not been generally supposed; the fact that such a demand does exist and may be enlarged by a little cultivation was brought home to us this week.

Two jobbers, one of them from the Far West, both agreed that this enlargement of trade is easily possible. One of them, led to try the experiment by reports of troubles with wood rims, ordered a stock of fifty pairs of the steel article. All were sold within ten days. The experiment was tried late in the year, and the result was so satisfactory that the jobber in question means to make a more serious effort in the same line next season.

The fact may "suggest things" to other jobbers; indeed, with the increasing experiment and use of motorcycles, on which steel rims are in general use, the average jobber may well give a thought to the steel felly.

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Volume XLIII.

New York, U. S. A., August 8, 1901.

No. 19

NEW SHELBY DEAL

H. A. Lozier Objects and a Reshuffle Follows—Stockholders get Better Terms.

It was thought at the time the announcement was made that the absorption of the Shelby Steel Tube Co. by the United States Steel Corporation would be accomplished without any trouble. Subsequently, however, a hitch occurred that rendered the consummation of the deal somewhat uncertain.

The cause of this hitch was dissatisfaction on the part of some of the large stockholders of the Shelby Co. with the terms of the purchase. One of the foremost of the objectors was H. A. Lozier. Owing largely to his initiative the negotiations were reopened and the whole subject gone over again.

At a conference held last Thursday at the office of President Schwab of the United States Steel Corporation a settlement was reached that is satisfactory to all parties concerned. A change made in the proportions of stock of the respective companies to be exchanged was its chief feature.

As at first proposed, the United States Steel Corporation was to give one share of its common stock for five shares of the common stock of the Shelby Co., and one share of its preferred for two shares of the Shelby preferred. Under the new arrangement the exchange of preferred stock remains the same, but the Shelby stockholders will only have to give four shares of common stock for one share of Steel common.

The capitalization of the Shelby Steel Tube Co. is \$15,000,000, of which \$6,000,000 is in preferred stock and \$9,000,000 in common. At present there is \$5,000,000 of preferred and \$8,150,000 of common, outstanding. The company has no bonds.

No Rumor About it This Time.

At last the old Wilhelm plant, at Hamburg, near Reading, Pa., has been sold. It passed into the hands of the Hamburg Board of Trade last week, and possession will be given immediately. The terms of the sale are private. It is understood that the plant will shortly come into the hands of an automobile manufacturing concern.

Wainwright Receiver for Patee.

A sequel to the embarrassment of the Patee Bicycle Co., of Indianapolis, Ind., reported last week, is the appointment of a receiver for the concern.

Judge Carter appointed L. W. Wainwright to fill this position, this action being the result of a complaint made by the Goodyear Tire and Rubber Co., of Akron, O., Hannah Greenburg and Sarah Morris, whose claims aggregate \$1,752.76. They allege that the concern is unable to pay its debts. The Manhattan Storage Co., John R. Keim and the Puritan Tire and Rubber Co. are also said to have joined in the application for a receiver.

Receiver Wainwright is the present manager of the A. B. C. chain plant at Indianapolis, and was formerly president of the Central Cycle Mfg. Co., which became embarrassed several years ago.

Pfeffer not Guilty.

George W. Pfeffer, who conducts a bicycle repair shop at 578 East Genesee street, Buffalo, N. Y., and who was arrested by Detective-Sergeant Holmlund a few days ago on the charge of receiving stolen property in buying a number of stolen wheels from Ida Gorniak, was arraigned before Judge Murphy in the police court last week.

Pfeffer was placed on the stand. He pleaded not guilty to the charge. He admitted buying the wheels, but said he did not know they had been stolen, and, if he did, he would not have bought them.

Dr. Preiss, of Franklin street; Coroner Boller and twenty other well-known citizens testified, as did the detective who arrested Mr. Pfeffer, that he was an honest, upright business man and had a very good character.

In disposing of the case Judge Murphy said: "I believe that Mr. Pfeffer did not intend to commit a crime, and I believe him innocent. You are discharged."

Will Make Bicycle Supplies.

The Allman Gear Co., of Huntington, Ind., is said to be thinking of locating a factory at Louisville, Ky. They will manufacture bicycle supplies, and expect from the start to give employment to seventy-five skilled laborers.

BETTS CLAIMS FORFEIT

Eisenhuth Fails to Make Good Keating Purchase and Receiver Takes Action.

It is doubtful, after all, whether the sale of the plant of the Keating Wheel and Automobile Co. at Middletown, Conn., reported a few weeks ago, will go through.

The Eisenhuth Horseless Vehicle Co., of New York, was the putative purchaser of the factory. After considerable negotiation with Receiver Betts of the Keating Co. an agreement was reached and the terms of the sale agreed upon. As a preliminary, and to bind the bargain, the Eisenhuth Co. passed over a check, said to be a certified one, for \$10,000. This was several weeks ago, and it was further agreed that the balance of the purchase price of \$150,000 would be paid on August 1. That day arrived and passed, and the expected \$140,000 did not materialize. Receiver Betts is said to have gone to New York to investigate the matter.

It is further stated that an effort will be made to collect the check for \$10,000. If this has not already been done—and it would appear that such is the case—its certification should be a guarantee that it is collectible.

Since returning from New York Receiver Betts has filed a notice that he has claimed the \$10,000 forfeit money. The reason given by Eisenhuth officials for not purchasing the plant, as agreed, on August 1 was that their money was tied up by the great steel strike. Receiver Betts is of the opinion that the Eisenhuth company will be able to raise sufficient funds between now and September 1 to purchase the plant. If the sale is made in a reasonable time he will allow the forfeit money to apply on the sale.

Branches to be Closed.

According to the best information obtainable, the Trust's pruning knife is being sharpened for a fairly general lopping off of branches—that is, branch stores. Several factories, also, will feel the knife.

Detroit Concern Attached.

The stock of the Wimmer Bicycle Supply Co., State street, Detroit, Mich., was attached by Constable Butterfield last week on a chattel mortgage.

JOYOUS JUNE

Its Record; Rain, Roses and Increased Exports—But the Fiscal Year—Ugh!

June, the last month in the United States Government's fiscal year, rounded out the twelve months with an agreeable flourish in the matter of cycle exports.

For the first time in many moons, it proved a month that developed an increase instead of the loss to which the trade has grown accustomed. By comparison with the same month of the previous year, June's "glad-someness" shows a gain of \$55,705. There were inconsequential gains in Mexico, Central America, China and Australia, but the great bulk of the month's increase is due to the United Kingdom, Africa, the British East Indies and the Philippines. It was an "off" month with Japan, hitherto one of the few countries usually showing increased purchases of American cycle stuff.

While June itself was favorable, the fiscal year shows the loss for which every one was prepared—a loss of \$1,037,420. Excepting Great Britain—in which, comparatively speaking, the American bicycle almost held its ground—the shrinkage was general throughout Europe, the greatest proportionate loss being in France. It was in wailing Germany, however, that the heaviest money loss was recorded. This without regard to Cuba and Argentina, which so gorged their limited capacities last year that they have since been choked.

In the matter of increases, strangely enough, the two war-disturbed countries, Africa and the Philippines, easily lead. Japan, Mexico and Central America were also on the right side of the book. The statistics in detail follow:

Wheels not Above Suspicion.

On the counter of a downtown fittings establishment is a sign which says: "Built-up wheels, \$2.50 per pair." Then follows the brand of hub, spokes and rims—names well known and of fair reputation.

Within the memory of many men who do not lay claim to the title of veterans in the trade, prices on the separate parts exceeded many times over those now asked for the complete wheels; \$2.50 was not an unusual figure to be asked at retail for one rim, to say nothing of a pair. Hubs—well, a rear hub used to cost anywhere from \$5. to \$10, and a pair of them could not be purchased anywhere for less than \$10. Even the spokes and nipples were priced at a figure in excess of the one referred to.

The cost of assembling the parts also must be taken into consideration. At the present time, when all prices are at rock bottom, a repairer would not be out of the way to charge \$2.50 for assembling one wheel. An inside figure on two would not be likely to go much below \$4.

Yet here is a bona-fide offer of a pair of wheels at a nominal price! One cannot help wondering how it is done. Even mediocre goods and slipshod workmanship must cost something; they cannot account for it all.

Last of the Lamb.

Arrangements have been made for completely closing the plant of the American Bicycle Co. at Chicopee Falls, Mass. An inventory of the stock and machinery is now being taken.

The plant was, prior to its acquisition by the A. B. Co., operated by the Lamb Knitting Co., and devoted to the manufacture of Spalding bicycles. For some little time it has been running on spokes and nipples, and last spring it was closed down. The present move will throw only six men out of employment.

MAYBACH SETBACK

Attempt to Monopolize Carburetter Ideas Reversed by the Higher Courts.

According to cable dispatches, a decision was handed down in the British Chancery Division Court last week completely overthrowing the celebrated Maybach patents on carburetters.

The decision is a far-reaching one, and surprising from its unexpectedness. Only last May the validity of the patents was upheld in an action almost similar to the present one, and by the same court. It appeared to settle the matter and to give the patents a standing akin to that possessed by the Dunlop tire. Apparently the owners of the Maybach patents possessed a monopoly in float-feed carburetters used on gasoline motors, and the expenditure of immense sums to money to obtain possession of them seemed to be justified.

Two actions were pending in the Chancery Division. The first was brought by the British Motor Traction Co. against Friswell, a London dealer in automobiles, who was backed by an association formed to defend suits of this character. The second was brought by the same concern, which owns the British patents on the device, against the Longuemare people, who make the equally famous carburetter bearing their name.

The second suit was being heard before Justice Kekewich, who had rendered the decision in favor of the Maybach patents in May, referred to above. By mutual consent, however, this suit was permitted to stand over pending the trial of the first action. The latter was tried by Justice Farwell, who has given a decision overthrowing the Maybach patents and ordering the British Motor Traction Co. to pay the costs of the case.

In principle the Maybach carburetter and those claimed to be infringements were identical. The difference was in detail only, there being the same maintenance of a constant level of gasoline by means of the float-feed reservoir, this being the prime feature of the Maybach patents.

Particulars of the trial are being awaited with interest.

The fact that the validity of the Maybach patents had been affirmed once was a factor in the case, adding materially to the strength of the plaintiff's case. Judge Kekewich even went so far as to tell the defendant's counsel that he could not say, in his argument, that the patents were bad. Even in the light of additional evidence this statement could not be made. The patents had once been declared valid, and no statements derogatory to them would be permitted.

"Motocycles and How to Manage Them"; 126 pages, 41 illustrations; cloth bound. \$1. The Goodman Co., Box 649, New York. ***

Articles and countries.	June		Twelve months ending June—		
	1900. Values.	1901. Values.	1899. Values.	1900. Values.	1901. Values.
United Kingdom.....	\$42,087	\$71,736	\$868,190	\$463,063	\$437,128
France	18,564	7,951	479,381	238,616	162,828
Germany	23,037	12,090	1,117,352	415,216	199,398
Other Europe.....	77,824	40,935	1,365,860	746,574	505,483
British North America.....	27,903	20,418	582,500	380,891	303,372
Central American States and British Honduras	80	165	6,330	2,664	5,175
Mexico	924	1,368	48,301	24,030	20,585
Santo Domingo.....	29	5	253	329	489
Cuba	3,216	1,161	22,614	150,723	14,161
Porto Rico*.....	239	.....	2,912	2,745	.....
Other West Indies and Bermuda.....	5,037	3,437	67,840	53,276	51,973
Argentina	2,951	613	238,788	161,258	24,653
Brazil	4,520	1,115	55,046	30,812	10,427
Colombia	58	.....	9,328	6,327	612
Other South America.....	2,595	1,676	54,441	63,713	32,538
Chinese Empire.....	3,541	4,788	26,180	29,151	20,095
British East Indies.....	4,667	9,401	142,301	105,694	61,856
Hong-Kong	500	231	8,847	8,386	9,212
Japan	38,532	26,386	117,943	245,866	252,200
British Australasia.....	13,030	13,349	255,053	243,007	207,705
Hawaii*	1,310	.....	41,639	52,519	.....
Philippine Islands.....	1,770	5,924	908	24,197	72,469
Other Asia and Oceania.....	4,403	1,824	40,301	43,351	24,235
Africa	2,548	11,107	200,813	60,375	98,830
Other countries.....	60	50	759	366	305
Totals	\$280,625	\$336,330	\$5,753,880	\$3,553,149	\$2,515,729

*No longer included in statistics.

PENNYWISE PURCHASERS

Here's a Fair Sample of the Breed—Twice Bitten but not Shy.

The patience—or perhaps credulity—would be a better word—of some riders almost surpasses belief. They will buy tires that have but one thing to recommend them—their cheapness—and when they go wrong resolve that they will have nothing more to do with such a penny-wise, pound-foolish policy. Yet when the time comes they turn short around and do the same thing over again.

The Bicycling World man witnessed a case that illustrates this strange tendency. Happening to be in a store in a small town, he overheard a conversation between the proprietor and a disgruntled customer. A free transcript of it runs thus:

"My tire's gone up again," began the customer in rather a truculent tone of voice.

"Is that so?" was the response, made in a commiserating tone. "What's wrong this time?"

"You may well say 'this time,'" was the rather heated reply. "I've only had it three weeks, and this is the fourth time it's been laid up. What's the trouble? Same old complaint. It won't hold air. I pumped it up half an hour ago, and it's flat now."

"Well, I suppose you had better run it back in the shop, and we will take a look at it some time to-day," said the dealer, and turned to attend to something else.

"No, I don't want to run it back in the shop. There's nothing that can be done to it by you or anybody else. I'm stuck, and there's nothing else to do but to get another tire."

"So bad as that, is it?" the dealer said, shaking his head sympathetically. "Yes, I suppose you had the bad luck to get hold of one of those porous tires. Well, it will happen occasionally."

"No, it ain't porous at all," was the heated reply. "It's just rotten—no good, not worth a continental. Serves me right, too, for buying such a tire. I've spent enough on tires this year to pay for a good set. I don't say it's your fault, of course; but I'm pretty sick of such truck as this. Now, what have you got in guaranteed tires?"

The dealer ran over the names of some of the standard makes, with the usual prices tacked on. They ranged from \$6 to \$8. It was plain, however, that the rider did not like the quotations, for he made a wry face.

"Oh, confound it!" he said, "haven't you anything good for less money than that? I'm not a millionaire, and I can't afford to spend so much just for tires."

"Nothing in these guaranteed goods," was the reply. "But here's something that might interest you"—taking a tire down from a rack.

"Now, this is something good. If is a Blank second, only it hasn't the name on it. To tell the truth, I can't see why it is called a second; it appears to be just as good as a

first. However, here it is, and you can see for yourself that it is all right. I'm going to put a pair on my own machine, and two or three fellows I have sold them to say they are just as good as the So-and-So. I got a special low price on these, and can give you a pair for \$2.50. At that price they won't last long, for the supply is limited."

Well, to make a long story short, the customer, after considerable hesitation and feeling of the tire, with glances at the higher-priced ones and mental calculation of the difference in the price, actually decided to buy a pair of these nameless tires.

He paid down his money and left the machine to have the tires put on. But even as he left the store there was a worried look in his eyes, as if he was already wondering whether he had not made a mistake. The dealer exchanged glances with the Bicycling World man, but made no comment.

No Room for Scruples.

When a man casts in his lot with the average "cut-price" concern he is apt to find conscientious scruples an incumbrance. The sooner he gets rid of them the more likely he is to make a success of his work.

The Bicycling World man is reminded of this by a talk had recently with a salesman for a concern of the kind referred to. The subject of a chainless machine came up. This particular one was being advertised as worth \$60, but sold for \$19.50, and at the latter figure it was heralded as the bargain of the year. It may be added, parenthetically, that it was dear at any price.

"But is that machine still being made?" inquired the Bicycling World man. "Didn't the makers go out of business some time ago?" knowing full well that such was the case.

"Well, yes, they did," was the reluctant reply. "And buyers would have rather a hard time getting parts if anything should go wrong. However, that is something we don't have to think about. We only look after the selling end."

One can't help picturing the feelings of unlucky buyers when they made the discovery that the only way to get parts was to make them.

Cycles and Motors Divorced?

What may develop into a very serious situation faces the managers of the two English cycle shows. Notice has been served on them that they need expect no motor exhibits whatever. This action has been taken by the Automobile Club of Great Britain, and as it is a pretty powerful organization it may be able to prevent the showing of automobiles at either the Stanley or the National show. The Automobile Club proposes to hold a show of its own; hence the action referred to.

Last year the motor exhibits were all important to the National show, and scarcely less so to the Stanley. If cycles only are shown this year both will undergo a very great shrinkage. However, as a very large number of the cycle manufacturers have also embarked in the motor business, it remains to be seen whether even the Automobile Club has the power to divorce their exhibits.

RIPPER'S NOTES

Buffalo Price-Cutter's Paper Returns to Vex its Indorser—Factory Attached.

An outgrowth of the recent failure of the Ripper Cycle Co., of Buffalo, N. Y., was an action brought last week by the Metropolitan Bank of Buffalo against the American Bicycle Co. to recover \$2,831.25 on notes given by the Ripper Cycle Co. and indorsed by the American Bicycle Co. and discounted at the bank.

The American Bicycle Co. was incorporated in New Jersey, and the plaintiff has availed itself of the statute which permits an attachment to be made on the property of a defendant which is a foreign corporation or a resident of another State. On Wednesday the writ of attachment was forwarded to Sheriff Marvin, and Deputy Sheriff Bentley made a levy on property of the defendant at Wyoming and West Fayette streets, Syracuse, N. Y. The attachment does not interfere with the business of the company.

In this connection it is said that creditors of the Ripper Co. are making strenuous efforts to ascertain the whereabouts of the proceeds alleged to have been realized from the sale of goods a short time before the embarrassment took place. It is asserted that goods were sold at any price, frequently considerably below cost, in the effort to turn them into cash, and that the large sum of money thus obtained was not satisfactorily accounted for.

It is alleged that the Ripper Cycle Co. on June 25 made a note for \$2,091.27, which was subsequently indorsed by the American Bicycle Co. and transferred to the Buffalo bank on July 10. The note went to protest, payment being refused. On June 10 the Ripper company made another note for \$737.38, which was also indorsed by the American Bicycle Co. and transferred to the bank. This note went to protest also.

No time was lost by the A. B. C. in preparing its line of defense. On Friday it furnished, through its attorneys, a bond as security for any recovery which might be allowed in the suit. In consequence of this Justice White granted a discharge of the attachment and it was withdrawn by the Deputy Sheriff. It was contended by the defendants that they are not liable, that the action was brought without notice to them, and that the levy under the attachment was made in Syracuse in the absence of the manager, and without any notice to him.

England's Exports Increased, too.

June was a joyous month for England, also. Its cycle exports for the month developed a substantial increase over June, 1900, the figures being £45,773 and £40,584, respectively. For the half year ending with June the aggregate exports attained a value of £264,864, as contrasted with £292,778 in the corresponding half of last year, and £915,986 in the first six months of 1896—the boom year.

ANOTHER CHAMPION ON A NATIONAL.

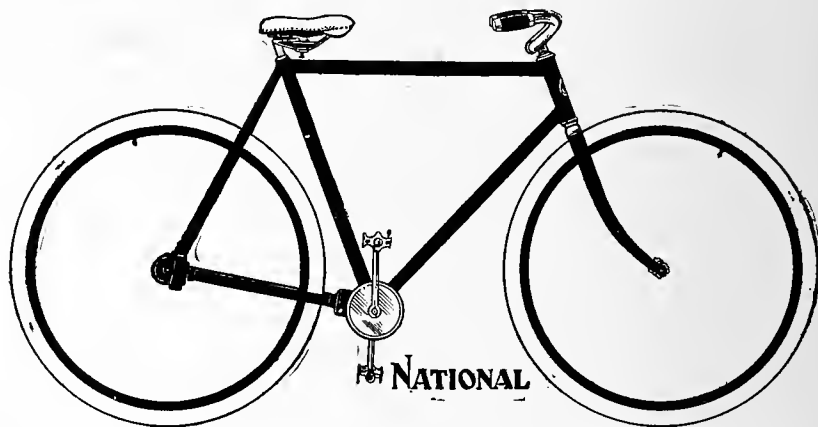
EDDIE "CANNON" BALD SAYS:

BUFFALO, N. Y., June 11th, 1901.

National Cycle Mfg. Co., Bay City, Mich.:

Gentlemen:—The Model 44 Cushion Frame Coaster Brake Chainless National Bicycle has been one of the most satisfactory mounts I have ever had. It makes an ideal wheel for business purposes, and I can recommend it to anybody desiring a complete bicycle embodying all the latest improvements.

EDDIE C. BALD.



TELLING HIM ABOUT
THE
NATIONAL BICYCLE

There's

a

Mighty

Truth

Aptly

Expressed

Trade
follows the Morrow;



Pleasure
goes with it.

Thousands

of dealers can subscribe to the first half of this statement;

Hundreds of
Thousands

of satisfied bicyclists to the other half.

And you all know it, too.

ECLIPSE MFG. CO., Elmira, N. Y.

Are YOU one of them?

THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
"The Wheel" and the "American Cyclist."

Published Every Thursday

By

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Change of advertisements is not guaranteed unless copy therefor is in hand on SATURDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should

Address us at P. O. Box 649.

NEW YORK, AUGUST 8, 1901.

Stands for Cycles Exclusively.

Needs must when necessity drives, of course, and on that theory it is quite understandable why it has not always been possible of late to keep cycling journals from browsing in other fields.

It is idle to suppose, however, that such a journal's entire clientage can be retained when a move of this character is made. That all cycle tradesmen are interested in automobiles, or even in motors, is a very much strained assumption. Many of them undoubtedly are interested, but when that has been said all has been said.

We have always contended that the cycle trade wants a cycle journal. As one manufacturer has said, the admission that it does not need and cannot support such a journal is a pitiable confession of weakness. If it were true it would not require any great amount of discernment to perceive that the business was actually on its last legs.

But the trade is a long way removed from such a pass. There is life and strength in

it yet, and a purely cycling journal, such as the *Bicycling World* is, undoubtedly fills a want and finds a sphere of usefulness.

That this is perfectly true is shown by the daily receipt of letters commending its course and giving such support, financial and otherwise, as is both desirable and necessary.

"For a number of years past," writes such a correspondent, a veteran New Jersey dealer, "I have been a subscriber to the —, but as it has become more of an automobile issue than a cycle issue I have decided not to renew my subscription. If you will kindly favor me with a sample copy of the *Bicycling World* I shall be pleased to look same over and place my subscription with you."

It is such letters as these that convey the assurance, if any doubt were felt, that the policy of publishing an exclusive cycle paper is the correct one.

People who imagine that the cycle business is merely a tail to the automobile kite are laboring under a delusion that will prove to be a very painful one. Instead of being a tail to any kite, it is a kite itself, and one which although not soaring to such high altitudes as formerly is still very well able to keep afloat.

The ebb and flow of the tide of success can be counted on with entire confidence. The cycle trade has experienced both, and the phase through which it is now passing is anything but a pleasant one.

But nothing is more certain than that it will come to an end.

When this end has been reached a decided betterment will undoubtedly take place. There will be fewer concerns left to share in the improvement, but that fact need not cause any particular worryment to those remaining.

In the meantime, the trade needs a first class newspaper to chronicle its doings and to be its public representative.

These functions the *Bicycling World* will, in the future as in the past, perform. It will continue to be of and for the cycle trade, holding that excursions into other fields are neither necessary nor desirable.

Looking for a Moses.

It is too often the case that we do not appreciate a thing at its real value until we have lost it.

This is well illustrated by the experience of the bicycle trade.

When constructional changes succeeded each other thick and fast there was a gen-

eral feeling that it was a bad thing. Uniformity of design was longed for, and tradesmen—for dealers were almost as keen for it as the makers—were fond of picturing what a wonderful improvement would take place when the yearly or semi-yearly changes of pattern would no longer be made.

This ideal condition was at length attained, and every one knows the result.

It is unfair, of course, to blame the present decline entirely on the lack of novelty. That would be just as much beyond the mark as it formerly was to expect the millennium and uniformity to come hand in hand.

Nevertheless, it is universally recognized that uniformity spells dullness just as plainly as change formerly spelled briskness.

There was a very perceptible slackening of enthusiasm in the year or two preceding the adoption of the safety; and the same thing happened just before the pneumatic tire startled the world and put new life into the sport. The same thing, to a much lesser degree, took place when the featherweight came in, and when heavier but vastly improved machines in turn succeeded them.

Each of these changes in turn furnished the novelty or the improvement that was needed as well as looked for. Under their influence trade revived, active riders cycled with greater zest, and old ones who had retired came back into the fold.

It was doubly fortunate that these changes took place when they did. Especially is this true of those which brought in the safety bicycle and the pneumatic tire. The high bicycle was for young men only; the solid tired safety for those who did not mind vibration in its most intensified form. It is well understood now, even if it was not at the time, that decay would have set in ere long had the changes not come.

For some years now the cycling world has been looking for something in the line of improvement—what it might be made comparatively little difference—to come along and work a similar change at this, a much darker, hour.

In the line of the pedal-driven bicycle no revolutionizer has come or even cast the faintest shadow before. Changes there have been, it is true. They were of a minor nature, and could do only a limited amount of good.

The cycling world is still looking, and looking anxiously, for a Moses to lead it out of the Land of Bondage.

Whether it is in store for some still un-

discovered Dunlop to do the trick no one can say. The mystery is beyond solving at the present time.

But the probabilities are that deliverance will come in the form of the motor bicycle. The regulation bicycle does not appear to be capable of much further improvement or even change.

Was it a Mistake?

Why is it that many former rider cyclists have stopped riding, while others no longer ride as much as they formerly did?

To these questions there are so many answers given that we could fill an issue of this paper with them. The explanations differ widely, of course, and frequently they are in direct conflict with each other.

Out of the many we will take one, that given by an ex-manufacturer who is thoroughly posted on the trade and possessed of strong opinions—too strong, perhaps, for his own good.

"The trade made the mistake of catering to the racing element," he said, "and it is now reaping a well-merited check.

"Everything about the bicycle has speed for its primary object," he continued. "Comfort is never considered. Springless frames, forks, saddles, handle bars, rat-trap pedals—all these mark the regulation bicycle. Together they come near to spelling ruin.

"If a different policy had been pursued—if comfort, even luxuriousness, had been the aim of designers, manufacturers and riders—there would have been a very different story to tell."

He then went on to say that he was glad to perceive signs of a movement in the much-to-be-desired direction.

He referred to the increasing use of the cushion frame, and the gradual drawing away from a racing wheel adapted for use on the road. This he considered a good sign, and one that heralded the coming of better times.

There is, perhaps, a grain of truth in these remarks. Along with the vast amount of good that the pursuit of the racing cult did for cyclists and cycling went some harm. It was not only the young and active rider, with the blood of youth coursing hotly through his veins and every instinct urging him on to competition with Father Time, who was given a racing bicycle to use on the road as well as on the track.

It was also the potterer, the indolent, middle-aged and cautious rider, who was sometimes persuaded or compelled to take a machine entirely unsuited to him.

But it is doubtful whether the trade went as far astray as the tradesman quoted imagines.

It had unusual and difficult problems to solve. Ease of running was the quality in a bicycle placed far ahead of all others. No sacrifice was too great to make for it, and the desired quality once obtained, much else could be dispensed with.

As far as appliances conducive to comfort conflicted or interfered with ease of running, it was ill-advised to use them. In the past, at least, cyclists would have none of them.

Times have changed considerably since then, and it is possible—nay, probable—that comfort, even to some degree at the expense of ease of running, is more desired than it used to be. There is much to support this argument at this time.

At any rate, the rider of to-day finds no such difficulty standing in his way when in pursuit of comfort as confronted him a few years ago.

Where the Prophets Missed it.

It long ago became an axiom in the cycle trade that no constructional novelty could ever be made right at first. It must go through its allotted stage of experimentation, after which it could be relied upon to give little or no trouble.

In one case, and one very much in evidence at the present time, this axiom has been badly shattered.

Reference is made to coaster-brakes. The fact has been commented on again and again that the vast amount of trouble they were expected to give has been conspicuous by its absence.

Of course, it is not meant that all coaster-brakes have been perfect, or even that none have given any trouble. That would be contrary to the fact.

But it is quite within bounds to say that coaster-brakes have been, in the main, eminently satisfactory in their workings. They have been subjected to severe tests, and the overwhelming majority of them have emerged triumphantly.

It was prophesied that a vast number of accidents, some of them serious if not fatal, would inevitably occur as soon as the coaster-brake came into general use.

The absence of any other brake on machines, coupled with the carelessness of the great body of riders, would bring about this unpleasant condition of affairs, it was said with confidence and emphasis.

But nothing of the kind has happened. Whether the fears entertained were merely chimeras, or the devices that have been fitted to machines have been exceptionally—nay, marvellously—well constructed, the result is the same.

The latter explanation is a very pleasing one.

A Companion in Misery.

Can it be that the trolley car is interfering with the use of other vehicles as well as bicycles? Such an inference would appear to be warranted by figures made public showing the number of vehicle licenses issued at Indianapolis, Ind., this year.

Bicycle licenses head the list, as a matter of course. To August 1 18,230 licenses were granted, as against 21,721 last year—a falling off of a trifle over 15 per cent.

For horse-drawn vehicles, however, the showing is not very much better. The licenses issued to August 1 number 8,368, a falling off of a little over 10 per cent from last year, when 9,253 licenses were granted.

The city officials are unable to account for this falling off in vehicles other than bicycles. It is the more remarkable, coming at a time when the general prosperity of the country is such that an increase rather than a decrease in horses and carriages would naturally be looked for.

It is a relief, however, to turn from the bicycle as the only victim of the "slump." Misery loves company, and to have the horse-drawn vehicle bracketed with the bicycle as a declining luxury is some consolation.

Judged by the discussion in the English press and by the fact that the Dunlop interests are producing a single tube tire for racing purposes, it appears that the single tube wedge is gradually being driven deeper into the foreign trade. This, coupled to the circumstance that the Dunlop people have discontinued their system of rebating and to the further fact that the single tube tire can be purchased at favorable figures, should not only aid that type of tire, but should afford considerable relief to the English trade, if the trade will not close its eyes to it.

The consensus of opinion across the water appears to be that 1902 will witness a marked development in the direction of lighter bicycles and cushion frames. The former appear to be badly needed, the average weight being distressingly—and unnecessarily—high.

ECHOES FROM ENGLAND

Mainly About Motorcycles—Good Words for an American Tire.

London, July 24.—I have just had a rather funny experience with regard to the tire question. The driving tire of my Werner motor bicycle has worn down to such an extent that the rubber is entirely off the tread and the fabric is showing through in places.

As the machine has been less than four hundred miles, I hardly expected tire trouble of this kind so soon. The tire manufacturers ought, at any rate, to produce something that will stand on a comparatively light machine. So I took the cover to the tire makers, and at their depot I saw the usual type of salesman—the manager being out at the time—we suffered from to such an extent during the late lamented cycle boom. This wise young man talked a great deal about there being riders and riders, but said nothing regarding the possibility of tires and tires. He finally remarked that when a man gets on a motorcycle he is apt to be nervous—evidently he supposed he was dealing with a novice—and jam on the brake so hard that the wheel skids and so wears the tire. I was beginning to enjoy the fun. So I remarked that the tire had worn evenly all the way round, so that if the brake had skidded the wheel it must have done so pretty often and at exactly different places. He thought that that was quite possible. I thought that it was just possible, and he fancied he had finished with me.

But I asked him what he intended to do about the tire, and he practically said that he had explained the reason of its failure and could do nothing. Thereupon I remarked that I had listened with great interest to what he had said, but it did not affect my case, because the motor drove the front wheel, and that was the tire which was defective, while the brake acted upon the rear wheel. That young man looked silly and asked me to send the tire for inspection.

I hear that not a few motor bicyclists have had cause to grumble at the belt driving now in general use here on motor bicycles. The reason is that, whereas it is comparatively easy to get a good drive from the motor to the machine by means of a belt run fairly loosely, so that the strain upon the bearings is reduced, yet in order to make the belt start the motor a very tight adjustment is necessary. This sets up a very great amount of friction, especially upon the motor crank shaft, which is subjected to a good deal of cross strain in consequence. Messrs. Brown Brothers tell me that they will shortly bring out a motor bicycle in which belt driving is dispensed with and a chain fitted. This, it is claimed, will take up much less power, and it can be run fairly loosely, in which condition it will act with equal efficiency, no matter whether the motor

be transmitting power to the driving wheel or the latter is reversing the operation by starting the engine. The only thing to be considered is the matter of noise, and also some method of providing adjustment for the chain without using idle wheels of any description. On machines of the Werner type, where the motor is carried on the steering socket, there is no difficulty in arranging to tighten or loosen the chain by moving the motor up or down on a special bed attached to the head of the machine. Something of the kind might be done on machines of the Minerva class, where the motor is fitted below the lower front tube of the frame, but here the movement allowed would have to be much greater in order to effect the same amount of adjustment. I should not be at all surprised to see chain driving become popular for motor bicycles, and it will possess many advantages, especially if the chain be fairly long and passes over large chain wheels. Most of the small belts now used give trouble by either slipping badly or by constantly breaking.

The same firm showed me a sample of the motor vehicle and motorcycle tire made by the Pennsylvania Rubber Co. It will, I think, be a tire which will become popular here if properly pushed, because, while having a tread of great thickness, it is at the same time a genuine pneumatic with a large air space. It is the small air chamber and the equal thickness of the walls all round which is, in my opinion, against the New York tire, for I think this will be found to slow the tire not a little. After my experiences with some of the double-tube tires now sold for motorcycles I should feel very much inclined to try strong single-tube tires in place of the more popular pattern. The worst of it is that single-tube tires have a very bad name, owing to their failure in the matter of ordinary cycles; but then it must be remembered that the weight has not to be kept down to the same extent when dealing with motor tires. The worst of changing is that it means rebuilding the wheels—an expense and trouble to which many people do not feel inclined to go on what they look upon as a more or less risky experiment after their experiences of such tires on cycles.

I am rather surprised that so few of the motorcycles built by the Singer Co., Ltd., are to be seen on the roads. Near London they are seldom encountered, and in fact I have only seen one of these motor bicycles in actual use. Yet the firm are making them as fast as they can, and there is a ready market. I fancy that this particular machine is the one which is popular with the remains of the society cyclists. The one machine I saw was being ridden at a slow pace by a gentleman of the retired officer type who looked wrathfully at any one who dared pass him on any other machine. He might have been a magistrate looking out for offenders against the legal limit, but this particular machine is certainly not likely to offend in the matter of speed. It is very much slower than most of the other types

of motor bicycles, though why this should be so it is hard to see, providing that the motor really works up to its reputed power. It may possibly have something to do with the one lever manipulation. This does not lend itself to absolutely accurate adjustments of the mixture and the timing of the spark, which latter is such an important detail in driving any petrol motor with electric ignition.

About Ball Bearing Heads.

"The ball-bearing head of a cycle is a piece of mechanism which is particularly easy of derangement, wants careful attention when building up, and if not thoroughly understood will cause trouble," says a practical writer.

"In building up a cycle frame it is very easy to get a very slight 'set' on the head sufficient to put the two ball bearings out of parallel when the cups are fitted. It was in order to overcome this tendency that some firms adopted a spherical outline for that part of the ball cups which beds in the head lugs. This allowed of the ball cups settling square with each other when the bearing was adjusted, and is really a very satisfactory method. Some cycle makers in fitting up cycles sweat in the ball races in the head. I am not of the opinion that this is good practice. If the cups fit properly they will not need sweating in. If they do not fit it is very probable that in time the solder will give way, when you will have a species of babbitt metal bearing instead of a ball bearing, the cups turning in the head lugs instead of remaining stationary.

"Fancily construction of the ball races may easily cause trouble with a head bearing. If the ball bearings are constructed so that the bearing has a tendency to roll sideways on the balls a most powerful wedging action will be set up which will cause elongation of the steering column and eventual breakage. This defect is existent in those cases where constant adjustment of the head is required and the ball races do not show signs of excessive wear to account for it."

No Trouble With Them.

The performance of the two Werner motor bicycles ridden in the Paris-Bordeaux race, a short time ago, has not attracted anything like the attention it deserves. The time made is wonderful enough—348 miles in 12 hours 26 minutes, and 12 hours 43 minutes, respectively. To annihilate distance on the road at nearly thirty miles an hour, and keep it up for over twelve hours, would a few years ago have been considered impossible on any road vehicle. But the marvellous thing about it is the fact that the two machines went through such an ordeal without trouble. What can be done by one machine can certainly be done by others.

"The Motor: What It Is and How It Works." See "Motorcycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York. ***

RACING

It is an attractive programme that has been made out for the Pan-American races at Buffalo this and next week. First the amateurs will hold the stage, preliminaries and finals of the championships and other races being run this week. Then the professionals will have their inning. The first three days of next week they will run the trial heats, and on Thursday, Friday and Saturday the finals of the short and middle distance championships. A few amateur events are thrown in for good measure. The programme for the last three days follows:

THURSDAY, AUGUST 15.

Quarter-mile dash, amateur—Prizes, value \$65, divided \$35, \$20, \$10.

Great Cataract Handicap, two miles, amateur—Prizes, value \$150, divided \$100, \$30, \$20.

Iroquois Handicap, two miles, professional—Purse \$400, divided \$200, \$100, \$50, \$30, \$20.

Quarter-mile circuit championship, professional—Purse \$175, divided \$100, \$50, \$25.

Exposition motor tandem championship, ten miles, professional—Purse \$200, divided \$100, \$50, \$30, \$20.

FRIDAY, AUGUST 16.

Half-mile handicap, amateur—Prizes, value \$70, divided \$35, \$25, \$10.

Pan-American championship, one mile, professional—Purse \$350, divided \$200, \$100, \$50.

Half-mile handicap, professional—Purse \$150, divided \$75, \$50, \$15, \$10.

2.10 class race, one mile, professional—Purse \$100, divided \$50, \$25, \$15, \$10.

Exposition motor bicycle championship, professional—Purse \$100, divided \$50, \$25, \$15, \$10.

SATURDAY, AUGUST 17.

Two-mile lap race, amateur—Prizes, value \$65, divided \$35, \$20, \$10.

Unlimited team pursuit race, amateur—Prizes, value \$75, divided, winners \$50, second team \$25.

Exposition invitation middle-distance championship, one hour, professional—Purse \$1,000, divided \$500, \$300, \$200.

Ten-mile national championship, professional—Purse \$250, divided \$100, \$50, \$25, with \$50 to rider leading greatest number of laps, and \$25 to leader at five miles.

One-mile handicap, professional—Purse \$150, divided \$75, \$50, \$15, \$10.

Two weeks of racing was auspiciously opened at Buffalo on Monday. At the Stadium at the Pan-American Exhibition Walter Smith started the ball rolling by annexing the 5-mile amateur paced record. He did the five miles in 8.27 1-5, breaking the former record of 9 minutes, held by J. R. Dubois, of Boston. He also broke the 2 and 3 mile records of 3.26 2-5 and 5.53 1-5, respectively. Smith's time for the two miles was 3.20 4-5, and for the three miles 5.01 4-5. The preliminaries in the quarter-mile and third-mile amateur championship were also

run, Hurley and Denny qualifying. Ingraham, of Chelsea, Mass., who won the 5-mile handicap, also qualified, and may prove an important factor in the final.

Rain interfered with the second day's races at Buffalo, the one hour amateur championship being interrupted when 12½ miles had been run. The standing of the contestants was taken at this point, and the race will be resumed on August 7, weather permitting. Zarbrick, Goehler, and Dennison, of Buffalo, Mettling of Boston, Dobbins of East Orange, Hoffman of Butte, and Wiley of Troy, are the leading contestants. Hurley equalled the expectations formed of him by qualifying in the one-third mile championship and defeating Denny in the one-quarter mile, thereby getting first place. He will meet Denny and Ingraham again in the final of the one-third mile, these two men having qualified in a run over their heat. Ingraham fouled Denny at the finish of the first heat, hence the run over.

If there is one track where Kramer is unbeatable in a scratch race it is at Vailsburg, N. J. This is so well understood that the meeting between the Pierce flyer and the Iver Johnson crack was known to be worth going far to see. It took place on Saturday, August 3, a National Circuit meet being on the cards. The race was at the accustomed distance, one-half mile, and the dramatic climax was reached after the heats, the semi-finals and the grand semi-finals had been run. In one of these Taylor narrowly escaped being shut out, wiggling through a very small opening by sheer good luck. The new star, Iver Lawson, was not so fortunate, or rather he was more stupid. He allowed himself to be pocketed, and with plenty of speed to spare was obliged to sit up. In the final some difficulty was experienced in getting Taylor and Kramer off, and had not the latter gone first his opponent might have been there yet. From one side of the track to the other the two men ambled, the dusky one always in the rear. At three-quarters of a lap from home Kramer began to work up his speed, and when Taylor was ready to jump the former was going almost as fast as the latter could go. Around the turn and down the straight Taylor fought hard, but it was no use, Kramer increasing his lead to a length by the time the tape was reached. The victory was a very popular one. Fenn on his little blue wheel won his weekly 5-mile handicap, McFarland getting second, and Alexander beat out Maya in the mile handicap, 2.10 class. Harry Welsing got within 1-5 second of the world's amateur record in the 2-mile handicap, his time from scratch being 4.13. Firth beat Billington in a close finish for the mile New Jersey State championship.

It is not often that three motor tandems are put hors de combat and a fourth partly disabled within five minutes after the start of a race. Yet this is exactly what happened at Madison Square Garden, New York, on

Monday night, robbing what promised to be a highly exciting and stubbornly contested race of its interest. Furthermore, all this happened without the motors being to blame in any particular. Stinson and Walthour met in a 15-mile race, and for 2 miles it looked as if Walthour would win, as he gained half a lap on his rival. At this point a chain on Stinson's pacing machine broke, obliging the riders to coast, but not interfering with the driving of the machine by the motor. A fresh machine was brought out, but before Stinson could change over to it the steersman on Walthour's machine swerved and the two machines crashed together. This was almost at the tape, and Walthour went down in the ruck, but in a few minutes got on his wheel again and began to ride. Stinson had escaped going down in the crash, but had lost his pace, and the two men rode around alone for several laps, Stinson having made up his disadvantage and gained a lap or two besides before Walthour mounted again. Then Stinson's machine with the broken chain picked him up again, while Walthour's extra machine was brought out. In their anxiety to get under way the men on the latter snapped a chain, this time the one connecting the motor with the driving wheel. The machine was useless, therefore, and after riding alone for a few laps Walthour retired. Stinson rode out the distance, his time being 27.37 2-5. A couple of uninteresting amateur races preceded the big event.

Marshall W. Taylor, otherwise known as "Major" Taylor, is about to bring suit against French Brothers, proprietors of the Vanderbilt Hotel, Syracuse, N. Y., to recover \$500 damages for having been ejected from the hotel, as he alleges, because of his color.

Taylor went into the Vanderbilt on Wednesday, and while waiting for an opportunity to register sat down to write a letter. A man near by at the writing desk became offended at Taylor's manner, and reported him to the hotel clerk, who ejected him from the lobby without learning his identity.

Complaint will be served on French Brothers, and suit will be brought in the Municipal Court under the laws of 1895, Chapter 1,042, "An act to protect all citizens in their civil and legal rights."

The law provides that all persons of the State shall be entitled to full and equal accommodations, facilities and privileges in hotels, restaurants, baths and similar establishments. For violation of the law a penalty of not less than \$100 nor more than \$500 is imposed.

Accidents spoiled the end of the big four-cornered 35-mile motor-paced race at Manhattan Beach on August 3. But they were not motor accidents, the puncture demon having his inning instead. Michael led at the start, and placed records for 1 and 2 miles to his credit, they being 1.30 and 3.01 2-5, respectively. Walthour took it easy at first, and it was not until 9 miles that he

came to the front, Michael and Nelson meanwhile seesawing for the lead. McEachern had punctured at 7 miles and lost $1\frac{1}{2}$ laps, but he remounted and made some of the distance up. Beginning with the tenth mile, Walthour gradually drew away. At 20 miles he had lapped Michael, who was second, Nelson being third. Three miles from the finish Michael was in second place, but his tire punctured, and he was compelled to see Nelson and McEachern both go by. Walthour finished more than a mile ahead of McEachern, and Nelson was a lap behind the latter. Michael finished almost two laps behind Nelson.

At his home, Glens Falls, N. Y., on August 1, Elkes defeated an opponent who was said in the newspaper reports to be Munroe in two straight heats. The distance was 5 miles, motor paced. Afterward Munroe denied ever having gone to Glens Falls, and it came out that Elkes's opponent was Alexander, who was put in to take Munroe's place when negotiations with the latter fell through. It is said that the substitution was announced at the track before the heats took place. It will now be interesting to see whether the N. C. A. will fine Munroe \$100 for non-appearance or Elkes and Alexander \$75 or \$25 for claiming that the ride was an exhibition.

Stinson was in hard luck at Providence on July 31, when he met Nelson in a 25-mile motor-paced race. The Swede revenged his defeat of the night before by winning the race by 2 laps 5 yards, time 39.34 4-5. The 2 laps were lost by Stinson on the 4th mile, when the tire of his motor machine burst, enabling Nelson to get a winning lead. Thenceforth Stinson made repeated and desperate efforts to overcome this advantage, but always in vain. Nelson was always able, if only just able, to stall him off. The spectators were treated to a great up-hill race, for Stinson never gave up in his attempt to make up the lost ground.

A disturbing factor in the N. C. A. championship contest was introduced last week when Iver Lawson, the Salt Lake City rider, made his appearance on the National Circuit. By shutting out Taylor in a qualifying heat and beating Kramer in the final at Syracuse, N. Y., on August 2, he gave a convincing demonstration of his speed. Of this he had plenty, and he crossed the tape first in the half-mile race, with Kramer a length behind. Downing won the 2.10 class race, just missing being put out of this very lucrative class, his time being 2.10 2-5.

Charles Porter and Watson Coleman proved to be well matched at Worcester, Mass., on Wednesday last, when they met in a 15-mile motor-paced race. Until the 14th mile they were on practically even terms, but on Coleman attempting to go by he lost his pace and the race. Porter gained a lap before his opponent recovered. His time was 24.58 2-5.

By again defeating Taylor at Hartford on Monday, Kramer got a better grip on first place in the championship contest. He led the negro over the tape by a length, as he did at Vailsburg the Saturday before. Iver Lawson could not get beyond the semi-finals. The race was the usual half mile, and the time the usual "record," this time 3.28 2-5. Leander won the mile 2.10 class, with Jack Green, the Englishman who came to this country via Australia with Lawson, second. Hausman was first in the 2-mile handicap.

Fenn was no match for Walthour when the two met in a 15-mile motor-paced race at New Haven on July 30. Beginning in the first mile, the Southerner lapped his opponent, and continued this almost uninterruptedly until near the end. On the 13th mile, however, Walthour's pace gave trouble, and Fenn got a couple of his laps back. Wal-



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

thour finally tacked onto Fenn, and not only stayed there, but at the finish came out and sprinted away from both Fenn and his motor tandem. Time, 26.05 4-5.

Caldwell really rode a good race against Stinson at Hartford, Conn., on August 2, and, although defeated, was not disgraced. The distance was 20 miles, motor paced, and Stinson won by $1\frac{1}{2}$ laps in 34.04 3-5. It took Stinson 8 miles to gain his first lap, and for 8 miles more he scarcely gained a yard. Then each man had a little trouble with his motor, but without net change in their positions.

The two recruits, late from Australia, Iver Lawson and Jack Green, are likely to make their mark. Lawson has speed in almost unlimited quantities, but his head work is not up to the mark. He is young looking, quiet and unassuming, and has a wonderfully good action when riding. The Englishman, Green, is a hard worker, and only needs a little time to get some of the money.

Their Vision is Improving.

That the value of machinery is determinable only by a comparison with the latest types is coming to be realized even in that hotbed of old-fogeyism—the British machinery trade.

"The Bryant & May amalgamation has promptly afforded an object lesson to the argument that it pays rather to throw obsolete machinery on the scrap heap than to keep it running because of its original cost," says Wheeling.

"Here we have a young, up-to-date company bringing the greatest firm in its trade to its knees simply by being possessed of the whip hand in point of machinery. 'The machinery you are using to-day we discarded fifteen years ago,' said the candid chairman of the American company, and went on to add that if Bryant & May's did not accept their terms that would be the end of their trade.

"Making allowance for American bombast, there is something in this case for all British manufacturers. Our machinery is generally laid down too much on the principle of family heirlooms—to be handed on from father to son. We deride the American affection for a plant that will not last, but we overlook the fact that the Yankee does not want it to last. Machinery is always improving, and he wants to be able to be constantly buying the latest.

"The American manufacturer will throw away a thousand pounds' worth of machinery if he is going to reduce his working cost 30 per cent. It needs capital to do it, but it is the only road to success nowadays."

Doings in Dunlops.

There are indications that the Bartlett or beaded-edge type of tire will be more vigorously pushed by the Dunlop Tire Co. in future.

This is the old Clincher tire, which was purchased from the North British Rubber Co. a few years ago, and it is almost identical in method of fastening with the G & J type so well known in this country. For a time after its acquirement the Dunlop Co. shelved it in favor of their wired tire, but even this smothering process has not served to keep a good thing down.

So early as this the 1902 types of both the wired-on and the beaded-edge Dunlop tires are on the market. Both are vulcanized—another acknowledgment of error—instead of cemented, as formerly. It is said that this method of construction is expected to be such an improvement that the monopoly will be able to get a stronger grip than ever on the British trade.

It is interesting to note that the new retail price on both styles of tires is \$15.75 per pair. This includes rims, of course. There must be a nice profit on these.

Can't Overlook Motocycles.

The number of English concerns that are adding motor bicycles to their line is steadily growing. The Quadrant Cycle Co. and the Ivel Cycle Works are among late additions to the list.

PEDAL THREADS

The Old Discussion, Which is Right: Right or Left? Again Bobs up.

Next to the question whether the upper half of a wheel revolves faster than the lower one, no problem is more puzzling or has been more discussed than the one relative to whether the right-hand pedal should have a right or a left hand thread.

Gallons of ink and reams of papers have been used to exploit the various theories on the subject. When, some eight or nine years ago, at the time the light-weight craze was assuming its greatest strength, the change in pedal-fastening methods was made, manufacturers had to learn by actual experience which was the proper way to thread the pins and crank ends. Theory appeared to point one way, but practice was found to be exactly opposed to this.

The matter was finally settled, and settled so thoroughly that it ceased to be even discussed. Consequently many people have forgotten the explanation, while others have come into the game later and know nothing about the discussion.

A correspondent of the Cycle Trader confesses his ignorance of the theory of the matter, although he says he is "up" on the practice. To him, therefore, that paper gives the following explanation:

"Now, although this question has been thoroughly thrashed out by manufacturers, and it has been decided to fix a right-hand thread on the right-hand crank and a left-hand thread on the left-hand crank, there appears a very great amount of uncertainty among workshop men as to the why and the wherefore of this method of attachment," it says.

"Experience, however, has proved that the left-hand thread on the left-hand pedal is the correct method, and that there is a decided tendency for the pedal spindle to tighten up when the method is adopted. The reason is rather difficult to explain, but actual facts bear out the correctness of the method. In considering the action as it takes place it must be remembered that the tendency is not for the pedal to turn the pin, but the pin the pedal. If the pedal were fixed to the pedal pin it would, of course, turn out in a very few turns of the crank axle if the foot were kept on the flat of the pedal, but owing to the intervention of the ball bearing an entirely new action is interposed. The pedal pin has no longer any tendency to unscrew, because the friction of the ball bearing is less than the friction of the threads on the spindles moving in the threads in the crank.

"The real reason why the left-hand pedal pin on the left-hand crank has a tendency to screw inward is that the pressure on the end of the pedal pin which causes the pin to try and assume an oblique position in

the crank hole is always changing around as the crank is turned. If this action is reproduced by hand with a pin which fits loosely in the hole, holding the crank steady and moving the end of the pedal spindle in a circular manner, keeping it always pressed outward from the centre, and without trying to revolve the spindle, the reason will become apparent, and the screwing paradox of the pedal will vanish under the new information gained."

An even better explanation than this has been given on this side of the water, however.

"First, let it be premised that an inch plug will not slip into an inch hole. The plug must be smaller, and so the threaded end of the pedal is smaller than the crank hole it fits into. Take as an exaggerated case a pencil placed in a ring. When pressure is put on the pencil it lies in the lower portion of the ring. Now, if ring and pencil are rotated toward the right, just as a crank and pedal would be, the pencil is forced to roll on the continually changing bottom point of the ring, and the rotative direction the pencil would take would be toward the right.

"Similarly, in the crank and pedal, if the right-side pedal is screwed in on a right thread the rolling motion of the pedal is toward the right, and hence constantly tends to screw it up. In the same way the left-handed thread on the left-side pedal causes locking up.

"It has been computed that a screw could work itself in over its twenty threads in about 2,500 revolutions, and this figure could be taken as the number of turns requisite for a pedal to unscrew itself were it fixed on the right side with a left thread, or vice versa. The figures are, of course, theoretical, and there are many influences in practice which would modify the result."

Bearings not Disturbed.

Chain adjustments, long settled here by the general adoption of the eye bolt and nut, still cause concern to British designers and makers. Only a few weeks ago a patent was granted on the other side for a device of this kind.

Its object was to provide simple means of adjusting the chain tension without disturbance of the axle bearings.

"A camlike adjustment plate is pivoted on each side of the rear end of the cycle frame. This plate is provided with an aperture for the reception of the driving wheel axle, and with a curved slot through which passes a peg provided with a clamping nut to fix the adjustment plate in the desired position.

"The driving wheel axle can thus be set so as to loosen or tighten the chain by loosening the clamping nut and slightly rotating the adjustment plate in the required direction, then reclamping. To prevent the possibility of the chain slackening through loosening of the nut a spring pawl may be added, engaging a set of teeth on the lower edge of the adjustment plate."

ALUMINUM'S PECULIARITIES

Something About the "White Metal" and How Best to Work it.

In practice actually pure aluminum is seldom obtained, nor is it altogether advisable, so a competent writer declares.

It generally contains a percentage of impurity, the impurity being usually iron and silicon, either together or separately. The pure aluminum accounts for 99.25 per cent, the remaining .75 per cent being mostly silicon. It is soluble naturally in hydrochloric acid.

The melting temperature of aluminum is 625 degrees centigrade or 1,157 degrees Fahrenheit, being higher than zinc and lower than silver or copper. In melting the metal for casting it is advisable not to raise its temperature much above melting point, about 1,200 degrees Fahrenheit being quite sufficient. If melted beyond this point it is liable to extensive oxidation, as is also the case if it is allowed to remain in the molten state longer than necessary for founding operations.

Pure aluminum being of a very soft nature, it is advisable to alloy it slightly with either nickel or tungsten, a very slight alloy of these metals adding considerably to its toughness when cast. The shrinkage of pure aluminum in cooling from a casting may, for all practical purposes, be taken at a quarter inch to the foot, and allowances on patterns of any size should be made for this shrinkage.

To melt the metal an ordinary blacklead crucible, such as is used for brass or copper, may be used, though it should not be overheated, or it will absorb silicon from the crucible, and thus add to its percentage of impurity.

High Prices and Low.

Taking for its text the tendency of the American people to fall victims to periodical crazes, a New England journal says:

"When the bicycle was selling at several times a reasonable price, about everybody was crazy to get it. When to buy one meant to be unable to buy and pay for much of anything else, all were bound to buy, and all lines of legitimate business suffered from the fact. The bottom reason was that the extravagant price made it the rich man's mark to have a wheel, and it is characteristic of the American to want to appear and act as much like a rich man as possible, even if he can't be one.

"The present is a time of reaction in the bicycle trade, partaking somewhat of the extreme reached in the first swing of the pendulum. How long it will last no one can tell. But it is certain that there will be a permanent manufacture and market of bicycles, because they fill a necessary place in the modern economy, as time savers in business and as a means of healthful recreation."

COMFORT

with

SPEED

Is the

CUSHION FRAME

Motto.

The CUSHION FRAME is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold WITHOUT IN THE LEAST DETRACTING from the SPEED or POWER of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy, "get there" riders who at first "scoffed" the idea of COMFORT being combined with "speed and power" in a bicycle.

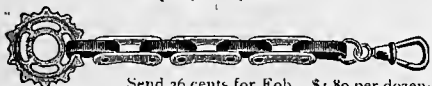
HYGIENIC WHEEL CO.,

220 Broadway New York.

Owners of the Cushion Frame Patents

INDIANA CHAINS

EASIEST RUNNING. CONSEQUENTLY BEST.

EVERY LINK IS RIGHT.
PRICE IS RIGHT.

Send 26 cents for Fob. \$1.80 per dozen.

INDIANA CHAIN CO., Indianapolis, Ind.
BRANDENBURG BROS. & WALLACE, Salesmen.
New York—Chicago.

Nice Repairman, This!

Editor The Bicycling World: I am very much interested in your onslaught on "mail-order bicycles," but I believe, if we give them plenty of rope, as the old saying is, they will hang themselves. Nine-tenths of the people who give up wheeling do so on account of those wheels. The wheels we get here are all equipped with the very rottenest of single-tube tires, with all kinds of "wild and woolly" names on them, and they will sell you any wheel you want simply by changing the nameplate on them. Of course, the repairmen—or, in fact, the one here—will stick up for them, simply because it gives him plenty of work; he actually refused to repair wheels I sold here this summer, the Iver Johnson; he said I was trying to flood the town with an inferior wheel, but he can't fool all the people all the time, and next season will find a change in the grade of wheels in this town, and by the farmers also, who are getting tired, when they want to come to town, of having to load their wheel in a wagon and bring it in to get it soldered up and a few plugs put in the tires.

I see where one of your correspondents refuses to repair them, which would be the right thing to do if they would all join in; but they will never do that, either in the East or the West.

C. B. MUCHMORE, Charleston, Ill.

What Does the N. C. A. Care!

Editor The Bicycling World: Your editorial in your issue of August 1 relative to the N. C. A. and the negro is only too true.

An instance happened at the Providence Coliseum which again illustrates the same attitude of the judges of the N. C. A. when a negro is in competition with a white man. The man "of color" had nearly passed the white man on the outside, where the track is on an angle of 45 degrees, when the white man ran up the track and threw the negro. No notice was taken of this dastardly act by the judges of the N. C. A., although it was in full view of them. One week later, when the same negro was riding, a white man tried to pass on the inside, but on account of the negro being the better man he kept the lead and won with ease.

In this part of the country a negro has just as many rights as a white man, and the N. C. A. should see that fair treatment is given to all who enter their sport.

Please do not use my name in any way.

REGULAR READER, Providence, R. I.

Is Behind the Times.

It would seem as if even an inventor would by this time be convinced of the folly of attempting to make ball tires popular. An English inventor, however, has made application for a patent on such a tire, his description of it being as follows:

"The rim is occupied by a ring of inflated elastic balls, or sections, covered by a cover which may be moulded on the inside with pyramidal prominences of rubber to keep the balls or sections in position."

**THERE'S
ANOTHER THING
THE DEALER DOES—**

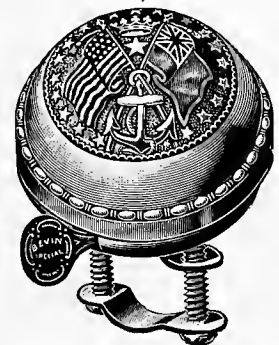
We mean the dealer who tries to sell goods, not the one who merely keeps goods for sale—he makes the most of his opportunities. He does not try to dispose of that which sells easiest but of which affords him the best return.

TAKE BELLS FOR INSTANCE:

He knows that the beautifully ornamented ones make a better display and are more attractive than the plain ones. He therefore keeps them "well up in front," he calls them to the attention of intending purchasers, "talks them up," and usually he sells them to those who might have been satisfied with the plain articles.

**DO YOU
PURSUE THAT POLICY?**

If so, these bells ought to interest you. If not, it is time you "got into line."



These are but two of many; our catalog illustrates the others.

BEVIN BROS. MFG. CO.,

East Hampton, Conn.

(Business founded 1832.)

Metals and Their Colors

"Some machinists seem to be grappling with the question as to what we shall name the heat color at which tool steel hardens, one claiming that "cherry red," the conventional name, is indefinite, and suggesting "blood red" instead, which would seem to be a doubtful improvement, says a well-known metallurgist.

"Another machinist suggests having slips of paper of the proper color for each brand of steel. This suggestion seems to have some value, although when we consider the probability of the paper changing color through handling, or from other causes, it does not appear to quite meet the requirements. A point that should be kept in view is that anything in the way of a color guide, to be of value, must always be seen in the same light, and also be capable of being brought close to the work in the fire for comparison—two things that are somewhat antagonistic, and, taken together, difficult to attain practically.

"The arrangement that I would suggest would be a pane or a window of properly colored glass set in a north wall, facing the operator. A second choice would be a sheet of properly colored tissue paper placed under the same conditions. The latter plan would be the easier to carry out, and by frequently changing the tissue paper would probably answer the purpose. In either case all white light should be excluded from the room.

"I believe that this matter of the regulation of the light in the hardening room does not generally receive the consideration that it should. Just what the practice of others may be I do not know, but I prefer to have the room darkened to a sort of twilight, experience convincing me that, for my particular work at least, I get the best results with the least amount of eye fog in this sort of light; but, whether we have the room light or dark, I believe we will obtain the best results by working always under the same conditions as far as possible. All are agreed, however, that steel should be brought to a certain red heat, and whatever name we apply to that heat color, and whether we obtain it in a coal or coke fire or in a gas furnace, and the proper heating of the steel, will all depend primarily upon the ability of the eye to determine when the desired heat color has been reached.

"It is not a matter merely of seeing the color of the piece in the fire, but rather the distinguishing of that color among a number of similar varying colors, the highest or brightest of which will have the greatest effect on the eye, tending to obscure or weaken its capacity for detecting the color desired. It is because of this brighter color, or glare of the fire, which must always be present in order to bring the work to a proper heat, and its effect on the human eye, that reliable steel hardening is as difficult as it is; and to my mind we add very greatly to this difficulty when we undertake to heat the steel in an open fire in a light room or just after making a weld.

"This blinding effect of light on the human eye is a matter of common experience, and that the capacity of eyes to detect certain colors varies is equally well known. We know also that the eye gets tired, and is affected more or less by the physical condition of its owner. Taking all this into account, it would seem that we ought to surround the eye with such conditions as will enable it to work with the greatest certainty and least possible amount of fatigue."

The Retail Record.

CHANGES.

Windsor Locks, Conn.—W. J. Miller succeeds F. L. Harvey.

Keene, N. H.—The Wilkins Toy Co. has purchased stock of A. J. Sweeney.

Buffalo, N. Y.—Finn & Chretien, No. 625 Main street, sold out to Annie Krumholz. The consideration named is \$1.

NEW STORES.

Wakefield, R. I.—H. S. Clarke, Clarke Block.

Cedarville, N. Y.—William Morgan, repairing.

New York, N. Y.—Wilson Bros., 2,083 Eighth avenue.

South Paris, Me.—Herrick Bros., repairing.

One Way to Reclaim Rubber.

According to Brimmer's patented process, old rubber and rubber waste, in order to render them fit for use, are first ground very fine and then dissolved in castor oil at a temperature from 180 to 210 degrees Celsius. After cooling, the solution is poured into 90 per cent of spirits of wine, in which it is continually stirred up until the rubber ceases to be a tough mass; the castor oil thins with the spirit very easily. After this the alcoholic fluid is separated from the rubber, and the latter has to be cleaned by washing it in fresh alcohol and warm water, to which small quantities of caustic lye of soda should be added, which makes the process easier.

Foot Brake a Novelty!

An old friend has made its appearance across the water. It is no less than the foot-applied tire brake, popular in this country a few years ago. It appears to be a novelty in the "tight little isle," however, for it is just being patented. It is described as a "brake plate or lever spring-hinged to the steering head, and which by means of a projection can be depressed by the foot of the rider so as to retard the machine."

Dunlop's Victor Gets Capital.

It is understood that, after many unsuccessful efforts, arrangements have been made whereby ample capital will be provided for the energetic pushing of the Wapshare tire. This tire—a British production—will be remembered as the only one that has yet won a legal victory over the Dunlop monopoly when sued for infringement of foundation patents.

Kron and his Cyclometers.

What a rush of old and hallowed memories is brought up by the story of the encounter between Karl Kron and Lacy Hillier a few weeks ago! In his characteristic fashion "Jarge" tells in the Cyclist how it all happened.

"I rode down to Brighton," he says, "and had run down the hill beyond Falmer, and was pedalling along the level, when I saw a figure all in white—black stockings excepted—and when I got nearer I saw the rider was on an 'all nickel' ordinary bicycle. I rode up close to him and cried, 'Karl Kron for a thousand!' 'Yes,' was the startled reply, and I turned round, introduced myself, and rode a couple of miles with the American visitor, who expressed himself as being delighted with his experiences of cycling in England.

"Karl Kron sits very upright, with his arms very straight, wears some curious leather arrangements in the palms of his hands, and was riding in his shirt sleeves and white shorts. He is of moderate height, square and stontly built, with a strong face and a square chin. He had a large bundle in front of his handle bar, and progressed at a moderate rate of speed, with a preference for riding on the wrong side of the road, according to English ideas.

"I hoped for some characteristic utterance from him, and was not disappointed. He had two Veeder trip cyclometers, one on each wheel. I alluded to them, and Karl Kron presently said, 'I completed my fourteenth-hundredth mile in England at twenty minutes past 4 this afternoon.'

"The American tourists intended to pass the night in Brighton and go the next day to Southampton, whence he was to sail for the United States."

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

"Defects (in motorcycles) and How to Remedy Them." See "Motocycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York. ***

WANTS AND FOR SALE.

15 cents per line of seven words, cash with order.

SOLUTION of the problem: Cycle worked by hand and foot. This patented invention of the most far-reaching importance to be sold for the United States. Model ready for use. Please address L. 2765, care of Heinr. Eisler, Advertising Agency, Hamburg, Germany, through whom all further communications may be made.

Preventing Pacing Accidents.

With a view to preventing accidents to pace followers, the suggestion has been made that pacing machines should have a small free wheel carried at the back level with the hub of the bicycle. It is thought this would prevent accidents, as the impact of the front wheel of the paced bicycle against the free wheel on the pacing machine would cause the free wheel to revolve in the same direction as the front wheel of the colliding bicycle.

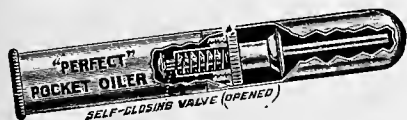
"The idea is a good one," says an English journal, "but not so good as that suggested by another engineer, who placed a wheel horizontally at the back of the pacing machine at such a height that it bore against the steering socket of the following bicycle. This horizontal wheel was adjusted so that the front of the paced machine could not foul the pacer, as it projected far enough to touch the socket, and so, as it were, hold off the paced from the pacer. This was a splendid idea, as it kept the front wheel of the paced machine laterally free, so that steering was not interfered with."

Should be in a Museum.

Some curious things are revealed in testimonials. An English firm advertises the testimonial of one of its customers, who states that he is entirely satisfied with "the mount I have ridden now for over fifteen years." The antiquity of such a machine is, of course, unquestionable. But a little mental arithmetic shows that it must be of the 1885 or 1886 vintage, and one cannot help wondering whether it is a high wheel or one of the very first types of safety machines. Even in the latter case it is more a subject for a museum than for every-day riding.

"Motocycles and How to Manage Them"; 126 pages, 41 illustrations; cloth bound. \$1. The Goodman Co., Box 649, New York. ***

"PERFECT"



OILER.

For High Grade Bicycles. The best and neatest Oiler in the market. **DOES NOT LEAK.** The "PERFECT" is the only Oiler that regulates the supply of oil to a drop. It is absolutely unequalled. **Price, 25 cents each.** We make cheaper oilers, also.

CUSHMAN & DENISON, Mfrs., 240-242 W. 23d St., NEW YORK.

HIGH GRADE

wheels must have the best equipments.

There is nothing that gives more value for the money than the use of the

MORSE TWIN ROLLER CHAIN



NOISELESS IN MUD, WATER OR DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless Rocker Joints. Insist on having the Morse Twin Roller. Fits regular sprockets.

Send for Catalogue and Trade Price to

Morse Chain Co., Trumansburg, N. Y.

HAND AND FOOT PUMPS,

Oilers, Repair Tools, Valves, Name-plates, etc.

Spelter Solder

Sheet Brass, Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn.
Depots: 210 Lake St., Chicago.
423 Broome St., New York

FAUBER PERFECTION HANGER.

Unequaled in any of the Points which make a PERFECT Hanger.
LIGHT, SIMPLE, DURABLE.

W. H. FAUBER, Manufacturer, CHICAGO, U. S. A.

NEW SYSTEM

of Gasolene Engine Ignition, "Autogas" Dry Battery, double porcelain insulated Ignition Plug, Secondary Coil, etc.

WILL SEND

$\frac{1}{3}$ DOZ. of my Automobile Dry Battery anywhere, f. o. b. New York, **FOR \$3.**

Write to-day for circulars, and mention Bicycling World.

WILLIAM ROCHE,

Inventor and Sole Manufacturer of New Standard Specialties.

41 VESKY STREET, NEW YORK CITY.

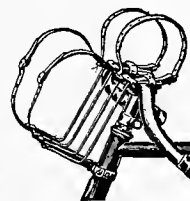
WOLFF-AMERICAN BICYCLES.

STEARNS BICYCLE AGENCY, - Syracuse, N. Y.

Sheet Steel Bicycle Parts.

All Kinds of Metal Stamping.

THE CROSBY COMPANY, Buffalo, N. Y.



LAMSON-PETERSON LUGGAGE CARRIERS

The most serviceable made.

MEQUIER & JONES CO., Portland, Me.



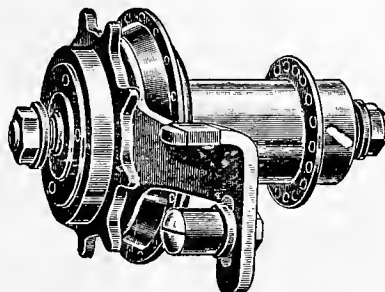
THERE'S REAL COMFORT IN THE REEVES

Ideal Spring Seat Post.

It relieves all jolts and jars, and converts any Bicycle, new or old, into a Cushion Frame. Fits any wheel. Sent prepaid to any address on receipt of \$1.75. Money back after three days' trial if you want it. Send size of present post. D. E. ORVIS & CO., 71 E. Genesee St. Buffalo, N. Y. Reference, Buffalo Commercial Bank.

Dealers send for Circular and Wholesale Price List.

HERE'S THE UNIVERSAL COASTER BRAKE.



THERE IS NONE OTHER QUITE SO GOOD. IT HAS FEATURES ALL ITS OWN.

Write for Catalogue and Quotations.

Universal Coaster Brake Co., Office 318 Ellicott Square, Buffalo, N. Y.

Bradenburg Bros. & Wallace, Selling Agents, New York and Chicago.

The Week's Patents.

679,465. Roller Bearing. Alexander P. Morrow, Elmira, N. Y. Filed Sept. 19, 1900. Serial No. 30,492. (No model.)

Claim.—1. In a roller bearing, an outer ring having double conical surfaces, an inner ring or cone having double conical surfaces, a retaining ring, and rollers in the retaining ring having reversely arranged conical bearing surfaces to run on the double conical surfaces of the outer ring, substantially as described.

679,512. Bicycle Pump. Melvin F. Rock, Homer, N. Y. Filed Jan. 12, 1901. Serial No. 43,039. (No model.)

Claim.—1. The combination with the seat-post tube of a bicycle, of a hollow seat post mounted therein and comprising a pivoted upper horizontal member; a pump piston mounted in the seat-post tube; a stem connected therewith and passing through the lower member of the seat post; a detachable tubular handle surrounding the upper end of the stem; and a latch adapted to engage said handle and also lock the upper horizontal member of the seat post, substantially as described.

679,519. Valve for Pneumatic Tires. Lyman T. Smith, New Haven, Conn. Filed Dec. 31, 1900. Serial No. 41,650. (No model.)

Claim.—1. A valve for pneumatic tires comprising a tubular stem part having a dovetailed notch in its top edge, a flexible wedge-shaped disk valve seated in the top thereof, and having a dovetailed projection or lip from its thickest edge adapted to engage tightly in the notch of the stem, and a screw-threaded cap having a central bore adapted to fit over the tubular stem part and secure said disk valve in place in sealing relation to the hole in said cap.

679,555. Motorcycle. Henri Dufaux, Geneva, Switzerland. Filed June 4, 1901. Serial No. 63,093. (No model.)

Claim.—In bicycles the combination with the frame of any construction whatever, of the frames formed of suitably bent and partially flattened metallic pipes, provided with suitable holes and eyes for affixing the motor and its casing to the same and in combination with bolts and sockets suitable for firmly connecting the frames with the frame and with a hand lever and guide, substantially as shown and described and for the purpose specified.

679,537. Bicycle Saddle Support. Moses H. Naber, Chicago, Ill., assignor, by mesne assignments, to Edward G. Pauling, same place. Filed Dec. 19, 1898. Serial No. 69,646. (No model.)

Claim.—1. A support for bicycle saddles, comprising a base having upper and lower legs, the latter being united in a loop, an integral torsional arm projecting laterally from each of said upper legs, wings formed of the continuation of said arms and having outer and inner ribs, the wire of the inner rib being bent around its associated arm and formed with a loop by which it is fastened to the saddle.

679,561. Steering of Cycles. John T. M. Hircok, Birmingham, England. Filed March 8, 1901. Serial No. 50,409. (No model.)

Claim.—In a cycle the combination of a transverse axle, a central collar for the axle having upwardly and downwardly projecting studs, a vertical tubular head consisting of a sectional sleeve the ends of which are connected to the cycle frame, tubes within the sleeve rigidly fitted to the studs of the collar, and anti-friction bearings between the sleeve sections and inner tubes, substantially as specified.

679,565. Bicycle Frame. Dalus W. Judson, Barrie, Canada. Filed Feb. 27, 1901. Serial No. 49,144. (No model.)

Claim.—1. A bicycle frame embracing in its construction a standard slotted at its upper end, a crank-axle bracket rigidly connected to the lower end of the standard, the lower side bars of the rear forks oscillatingly connected to the crank-axle bracket, the upper side bars being pivotally connected to the outer ends of the lower side bars, a vertically movable thimble contained in the standard provided with a lug extending outwardly through the slot of the standard and to which the upper side bars of the rear forks are connected, and a spring connected to the thimble and to the standard to return the parts to their normal positions, substantially as specified.

679,631. Mud Guard for Bicycles. George W. Manson, New York, N. Y. Filed Nov. 17, 1900. Serial No. 36,846. (No model.)

Claim.—The combination of the rigid supporting bars, a pair of bent-wire frames comprising converging arms attached at their forward ends to the extremities of the bars, and connected at their rear ends, a horizontal stay wire connecting the rear ends of the united arms, and a flexible band secured around said arms in a proper position to act as a scraper.

679,651. Electrical Ignition Apparatus. Ansbert E. Vorreiter, Aix-la-Chapelle, Germany. Filed Aug. 30, 1899. Serial No. 729,009. (No model.)

Claim.—1. An igniter consisting of a casing of magnetizable material, a stationary induction coil within said casing, and stationary, permanently separated igniter points connected with said coil.

679,659. Bell. David P. Wolhaupter, Washington, D. C. Filed March 23, 1901. Serial No. 52,579. (No model.)

Claim.—1. In a bell of the class described, a laterally tiltable support, an upright gong pendent from said support, and adapted to hang alongside of and in close proximity to the wheel of the vehicle, and a rotatable striker working within the gong and carrying an operating wheel exterior to the gong at the top thereof.

679,688. Steering Device. Walter W. Small, Cherryfield, Me. Filed Nov. 8, 1899. Serial No. 736,271. (No model.)

Claim.—1. The combination with a frame, and a fork stem, of a bracket arm fast with said stem, a steering stem loosely fitted to the fork stem, means carried jointly by the stems for interlocking the two stems and also permitting the steering stem to have an independent limited rotative movement, and a clutch mechanism carried in part by the bracket and separate from the interlocking means, said clutch mechanism being operative by the steering stem and normally making the fork stem fast with the frame, as set forth.

DESIGNS.

34,861. Lamp. Charles Carroll Armstrong, Columbus, Ohio. Filed Dec. 13, 1900. Serial No. 39,792. Term of patent, 14 years.

Claim.—The design for a lamp substantially as herein shown and described.

Highback Coaches on B. & A.

Commencing Thursday, July 11, the Boston & Albany R. R. will run vestibuled high-back seat COACHES between Boston and Buffalo, on trains 7 and 18, except Sunday, and on trains 29 and 36 daily. Also, Pullman parlor cars on trains 15 and 18, daily. ***

The Week's Exports.

Antwerp.—2 cases bicycles, \$84; 5 cases bicycle material, \$220.

Argentine Republic.—2 cases bicycles, \$23.

Amsterdam.—2 cases bicycle material, \$50.

Abo.—1 case bicycles, \$45.

British Possessions in Africa.—37 cases bicycles and parts, \$1,130.

Bremen.—7 cases bicycle material, \$370.

British East Indies.—12 cases bicycles and parts, \$1,631.

British West Indies.—11 cases bicycle material, \$259.

Constantinople.—2 cases bicycles, \$50.

Copenhagen.—26 cases bicycles, \$575; 1 case bicycle material, \$316.

China.—89 cases bicycles and parts, \$2,971.

Cuba.—4 cases bicycle material, \$203.

Dutch East Indies.—13 cases bicycles and material, \$445.

Genoa.—1 case bicycles, \$25; 28 cases bicycle material, \$909.

Glasgow.—7 cases bicycles and material, \$186.

Gothenburg.—4 cases bicycle material, \$85.

Havre.—52 cases bicycles, \$1,518; 33 cases bicycle material, \$1,848.

Hamburg.—17 cases bicycles, \$1,300; 44 cases bicycle material, \$1,507.

London.—230 cases bicycles, \$3,270; 23 cases bicycle material, \$1,172.

Liverpool.—78 cases bicycles, \$2,262; 10 case bicycle material, \$470.

Mexico.—1 case bicycles and material, \$37.

Nuremberg.—1 case bicycles, \$50.

Newfoundland.—4 cases bicycles and material, \$83.

Naples.—1 case bicycles, \$50.

Peru.—3 cases bicycles, \$56.

Portuguese Possessions in Africa.—1 case bicycles, \$60.

Rotterdam.—3 cases bicycles, \$116; 32 cases bicycle material, \$1,706.

San Domingo.—2 cases bicycle material, \$19.

Southampton.—14 cases bicycle material, \$1,960.

U. S. of Colombia.—2 cases bicycles and material, \$88.

Uruguay.—4 cases bicycles and material, \$282.

Zuthhen.—25 cases bicycles, \$862.

Like a Trestle Bridge.

From Portsmouth, N. H., comes an account of a new bicycle that is being sold there. Neither its name nor that of its maker is given, but the particulars of the machine itself are enough to excite curiosity.

"It is made," says the description, "of solid flat spring steel, instead of the regular round tubing. The construction is on the idea of a trestle bridge, being braced with extra bars, so every bar will give a little over rough riding.

"The frames are very odd, but very neat in design, and are guaranteed not to break, by accident or otherwise, and will hold a thousand pounds."

"How to Drive a Motorcycle." See "Motorcycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York, ***

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., Thursday, August 15, 1901.

No. 20

TWO FACTORIES CLOSED

Trust Abandons Two More Plants and Discontinues a Sales Department.

Rumor is again busy with the affairs of the American Bicycle Co.

According to reports that are circulating, the annual meeting will witness a shifting of officials that will affect those in high places, and see the policy of retrenchment applied with a heavier hand. Straws are not lacking to indicate that the rumors contain a germ of truth, but what is certain is substantially what the Bicycling World has already made known, i. e., that a number of branch stores and several factories will be discontinued.

The first move in that direction was made last week, when the Portland (Ore.) branch was closed and the Milwaukee and Reading factories were abandoned. The machinery of these two plants will be shipped to the Crawford works at Hagerstown. Simultaneously the Crawford Sales Department was discontinued, and the trade which it formerly handled will be cared for by the jobbing department of the New York headquarters.

Other closings and discontinuances of the sort may be expected at any moment.

Philadelphia Unloading in New York.

Using New York as its dumping ground, the Manhattan Storage Co., of Philadelphia, is making a particularly strenuous effort to unload. Under another name they established a cut price store on Park Row about one month ago, and last week opened another place of the sort further downtown. Their ads. serve to show the strenuousness of their efforts.

"Having to sell the entire \$50,000 stock, the contents of the great warehouse of the Manhattan Storage Co., all we want is the storage charges, and expenses," says one of them. "The public gains what the dealers who stored the goods have lost."

While the name of the concern may incline the great green public to believe that bicycle dealers really did store goods, these ads. are not only causing smiles in the trade, but are creating comment that may take shape.

Up to the Eisenhuth Company.

Pending a move by the Eisenhuth Horseless Vehicle Co., of New York, Receiver Betts, of the Keating Wheel and Automobile Co., of Middletown, Conn., has declared the \$10,000 check of the first named concern forfeited. If the Eisenhuth Co. is able to carry out its contract on or before September 1, by the payment of the balance of the purchase price of the Keating plant, \$140,000, there will probably be no objection to their doing so. At the present time, however, they stand in the position of having failed to fulfill their agreement, and beyond declaring the \$10,000 forfeited Receiver Betts has no power to grant an extension of time. There is little doubt, however, that this can be obtained from the courts if the Eisenhuth Co. should find itself able to pay the \$140,000.

The outcome is awaited with considerable anxiety at Middletown.

Renold's Recognition.

According to dispatches from Ithaca, N. Y., the seat of Cornell University, Hans Renold, the well known English chain-maker, who was recently in this country, has arranged to place his son in that college. The same advices quote Mr. Renold as saying that he attributes America's commercial supremacy to the scientific and technical courses made possible by American universities. The English youth, he says, can obtain such instruction and knowledge only by a long, tedious and more or less disagreeable apprenticeship.

Bids Were Not Satisfactory.

Bids for the stock and fixtures of the Burroughs Cycle Co., 7 Barclay street, New York, whose failure was announced a couple of weeks ago, were opened in the office of the Clerk of the United States District Court on Monday last. None of those submitted being considered satisfactory, however, they were not accepted. Another meeting is to be held to-day, when it is hoped that a different result will be reached.

Five and One-half Per Cent for Creditors.

An accounting has been made by Receiver Jones of the Sanger Handle Bar and Plating Co., of Milwaukee, Wis. The creditors will get a final dividend of only 5½ per cent, there being but \$2,059.33 left for distribution after the payment of expenses.

HAZARD & CO. FAIL

Misfortune Continues to Dog the Old and Once Famous Peoria House.

Misfortune appears to dog the footsteps of members of the once famous and prosperous firm of Rouse-Hazard & Co., of Peoria, Ill. Last week Hazard & Co. failed, and there is scarcely a possibility of their resuming.

They did a commission business in agricultural implements, bicycles, etc. The failure was forced by a Chicago implement house which had a claim for \$400. This was disputed, but judgment was obtained, and this brought the other creditors down on Hazard & Co. The assets are put at about \$8,000, nearly all due to Chicago firms.

It is said that one of the reasons for the failure of the firm was the amount of money spent in the manufacture and advertising of a special bicycle which they promoted last year, and which was said to have stood them a heavy loss.

The head of the firm of Rouse-Hazard & Co., George W. Rouse, died before the trouble overtook it. Several years ago, after a long and fruitless struggle, the firm assigned, this action being largely due to the creation of expensive works and the embarking, some years before, in the manufacturing business. After the failure a split took place, H. G. Rouse, son of the founder, forming one concern, dealing in bicycles, and Hazard continuing the implement end of the business, with bicycles "on the side."

H. G. Rouse died, however, only a short time ago, his business worries having much to do with his taking off. Now Hazard & Co. go the same way, and the last vestige of the concern so celebrated in the high wheel days has passed into oblivion.

Two Less in Portland.

The A. B. C. has begun the pruning of its branches, as foretold last week. The Portland, Ore., branch was the first to feel the knife. It has been closed, and the stock shipped to San Francisco. H. Goodman & Co., of the same place, have also discontinued business.

UPSET OF MAYBACH

Grounds Upon Which Court Ruled his Carburetter Patent to be Worthless.

Motor patent values in the "tight little isle" have undergone a sudden and material shrinkage within the past couple of weeks.

Almost at the beginning of what was to have been a regular campaign against alleged infringers of patents which covered practically every part of the motor vehicle, the owners of these patents have encountered a sudden and altogether unlooked for check. Particulars of the Maybach carburetter decision, referred to last week, are at hand, and confirm the importance then attached to the matter.

The Maybach patent, taken out by a German of that name, was asserted to be a foundation patent on carburetters of the float feed type. With the passing of the surface type of carburetter, the float feed type, of course, assumed great importance, and today it is in general use on both motorcycles and automobiles. Its great merit lies in its reliability, changes in atmospheric and other conditions affecting it scarcely at all.

This being so, it was only natural that the Maybach patent should have a very high valuation set on it. The Daimler Co. are supposed to have \$200,000 for the German patent rights, and the British Motor Traction Co. demanded a royalty of 10 per cent of the value of every machine on which this carburetter was used. It is scarcely necessary to say that this demand was resisted.

The test case came in a suit for infringement brought by the British Motor Co. against Friswell, a London automobile dealer. As noted last week, it resulted in a sweeping victory for the latter, who was supported by an association formed to defend such suits.

It appears that the court's decision is really a knockout blow for the Maybach patent. This is evidenced by the remarks made by Justice Farwell, who handed down the decision in the Chancery Court.

"The truth is," he said, "that Maybach thought that he had discovered the mode of maintaining the proportion of air and oil by the action of the piston, and his amended patent is merely an attempt to save something from the wreck when he found that his supposed discovery was old.

"Unless the patent is for the method defined and illustrated by reference to any nozzle, channel, mixing chamber and so on of any sort, it fails, in my opinion, for want of subject matter. But if it be for such a method, then it fails for want of novelty. Maybach told the world nothing that was unknown before, and the actual method by nozzle, channel, mixing chamber, and so on had been anticipated by Wilkinson and Butler, and is explained in the article and illustration in the Engineer.

"It was urged that Mr. Justice Kekewich decided the contrary as regards Butler, but it is clear that the evidence before him was of a very different character, and the defendant in that case seems to have been in a very accommodating mood when in the box. In this case it has been proved that Butler's will work, and work as well, if not better than any other.

"I do not place so much reliance on Wilkinson's, because the experiments were not so satisfactory. If a machine made according to prior specification is relied on as a practical anticipation, the machine ought to be made according to the whole specification, and not with omissions the materiality of which would raise a fresh and by issue.

"Finally, even if the patent were valid for a machine, I should be of opinion that the defendants had not infringed. The first claim states in terms that the sucking is performed by the air sucked by the working piston; in the defendant's the air comes down in opposition to, and not in accordance with, the outcome of the jet. The claim is for direct suction by reason of the vacuum caused by the piston as distinct from the induced vacuum caused by the air rushing past, used by the defendant.

"The plaintiffs' claim fails, and their action must be dismissed with costs."

Tricks to Deceive Tiremakers.

He happened on a Bicycling World man as the latter was seeking the cause of a slow leak in a tire. He was an utter stranger, but, like a good Samaritan, he proffered his services. He was garrulous as well as friendly, and soon fell to talking about tires, not knowing to whom he was talking—nor is he any the wiser now.

"If you want to get a new tire, you can do it easily enough," he volunteered. "All you need to do is to remove the tire from your wheel, pump it up as hard as you possibly can, then take a hammer and hit it a hard blow, and in about a minute it will develop as pretty a pimple as you care to see. The blow breaks the fabric, you see, and the manufacturers can't tell whether the 'pimple' is due to a defect or to some other cause. I used to be in the business, and played that trick many a time. But you've got to have the tire as hard as a rock to work it," he added cautioningly.

The instance will serve to show how tiremakers are imposed on, and why they are sometimes chary about "making good their guarantee."

Hendee's New Company.

Efforts are being made at Springfield, Mass., to organize a new company to manufacture the motor bicycle invented by Oscar Hedstrom, who made the first one for the Hendee Mfg. Co. last spring. It is planned to increase the capitalization of the Hendee Co. from \$5,000 to \$35,000, George M. Hendee practically retaining the controlling interest in the stock of the new company.

COST TRADE THOUSANDS

In Iven's Opinion the L. A. W.=N. C. A. Fight was a Factor in Injuring Business.

C. J. Iven, of C. J. Iven & Co., the well known sales agents of Rochester, N. Y., was at Manhattan Beach when the talk occurred. It was the first race meeting he had attended in a long while, and, like many another whose interest in racing had waned, he was impressed by the tremendous speed made possible by motor pacing. From this subject the conversation drifted to trade.

"Do you know," ventured Iven, "that I attribute no little loss of trade and public interest in cycling to the fight for the control of racing between the L. A. W. and the N. C. A.?"

The statement was promptly challenged.

"Yes, I really believe it," he reiterated. "You know how racing enthused us in the old days. Why, then, should it lose its effect on the youngsters who are growing up or who have grown up in the last three or four years? It is on these youngsters that much new business depends, and I am firmly convinced that their ambitions are fired and desires sharpened by cycle racing. If I remember rightly, the year before the L. A. W.-N. C. A. fight began there were something like fourteen hundred race meets, to say nothing of the hundreds of road races. It was a good year from the trade standpoint, too. While the fight was on promoters could not afford to take sides, and the public had no assurance of first class sport, and became lukewarm, if not disgusted. As a result, the number of race meetings fell away to four hundred, if my memory is correct, and the sales of bicycles fell away correspondingly.

"No. I don't mean to contend that the decline of trade was due to the decline of racing," went on Iven, after an interruption. "I realize that the 'boom' was due to a craze for bicycles that, like the itch, could not last for all time, but I repeat that, in my opinion, the fight between the L. A. W. and the N. C. A. cost the trade a good many thousands of dollars."

"But, do you believe that people who attend horseraces are fired with a desire to own horses, or that the success or failure of horseracing affects the horse market?" inquired a dissenter.

"Many of the people who attend horseraces," replied Iven, "are inspired wholly by a desire to gamble. But I do believe this: that wherever there is a track or speedway there is a desire and a demand for better stock. If there were no courses of the sort there would be no incentive to better the standard and create thoroughbreds."

From Cycles to Fly Killers.

The old plant of the Royal Cycle Works, at Marshall, Mich., is now being operated by a concern which turns out fly killers.

HIS LITTLE JOKE

How the Traveler Caused a Run for Socks on a Tire Factory.

As the travelling man seated himself and crossed his legs, he displayed a wealth of warm hosiery, in which scarlets and crimsons rioted.

It goes without saying that the socks excited remark; they were of the remarkable kind. When the comment had subsided, the traveller, unabashed, assured the chaffers that "these are mild to what I wore a few years ago.

"You remember the Vim tires, don't you?" he went on. "Well, I had several pairs of socks of just that shade of red. It was about the time when the Vim was in its zenith, and when manufacturers could afford to give away souvenirs. These circumstances and those socks caused more fun and more unusual situations than any socks I ever heard of. It all came about oddly enough. I chanced to be calling on the rather self-conscious manager of a bicycle factory in upper New-York, who was something of a sock-dolager himself. I knew it, and when I crossed my legs that day I expected him to say something, and he did!

"They're stunners. Where'd you get 'em?" he asked.

"The thought came to me quick as a flash.

"Where'd I get them?" I repeated. "Why, I supposed you'd have them before I would. Don't you recognize the color?"

"He admitted that he did not.

"Why," I went on, "it's the Vim color. The Boston Woven Hose and Rubber Co. are presenting all their friends with a dozen pair. I thought, as you were such a good customer of theirs, that you would be one of the first to get them. It's a clever ad., isn't it?"

"The manager was a cool one, however," continued the traveller, "and nearly took the wind out of me with his reply. 'That's so,' he said, 'I do recall that the Vim people wrote me a week or two ago asking me if I would accept a dozen pairs of those socks, but I was busy at the time, and tossed the letter aside, and then forgot all about it.'

"As there was not a word of truth in my yarn, you may imagine my surprise, but I concealed it as best I could, and then we fell to talking business.

"Never mind how I discovered it, but before I left that town I found that the door had hardly closed on me before Mr. Manager called his stenographer and dictated a peppery letter to the Vim people, informing them that he supposed when they were giving away good things they would not forget their best customers. He intimated broadly that he expected a dozen pairs of the 'souvenir socks' as quickly as the railroad train would bring them.

"Of course, I had my laugh, and a good

one. In fact, the story took so well in the first case that I tried it on several other people along the line, and as a result there were very few days for a week or more that the Vim people did not receive letters asking for socks. When I met their advertising man a month or so later, he told me that when the Boston office received Mr. Manager's letter they concluded that he had gone daft. When others reached the office, they quickly realized that some one was playing a joke, but until I confessed I was never suspected. The other fellows, of course, wouldn't admit who tricked them.

"If you don't believe me," wound up the traveller, as he noted the smiles, "ask George Sullivan. He was the Vim advertising man, and will bear me out."

The Tooting of the Teutons.

The war against foreign bicycles in Germany, led by the German Cycle Dealers' Association, is, if anything, increasing in bitterness. That organization's latest move assumes the form of a confidential letter to its members, in which they are warned under no consideration to represent foreign bicycles, either as sole agents or having one or two as samples. The penalty for violation of the warning is to be instant expulsion.

One member, Mr. Kukulak, it seems, took the representation of a foreign bicycle firm, and the matter finally came to the knowledge of the association, which without further delay notified Kukulak that he was no longer a member. Among other matters contained in the letter which the association wrote the gentleman there was the following:

"A German retailer should not only have in mind his own benefit, but more especially the benefit of the German industry as a whole, and even if he finds more profit and thinks a foreign bicycle is better and easier to sell to the better class of the people, he should nevertheless have enough courage to try and persuade his customers to buy the German make in preference."

Mr. Kukulak paid no attention to this notice, and continues to sell foreign bicycles.

American Show in London.

The directors of the Crystal Palace, London, are planning an American exhibition for 1902. Only American goods will be displayed. The directors are already being charged with lack of patriotism in helping an aggressive foreign rival to make further inroads into British trade.

From Cycles to Shoes.

O. E. Boles, manager of the American Bicycle Co.'s London depot, has resigned that position to engage in the shoe trade. Boles was a former Lozier representative, and several years since went from this country to represent the Cleveland bicycle abroad.

"Motocycles and How to Manage Them"; 126 pages, 41 illustrations; cloth bound. \$1. The Goodman Co., Box 649, New York. ***

ABOUT STRIPPED THREADS

An Up-to-date Repairman's Method of Handling Jobs of the Sort.

In these days any one doing a repairing trade has often to face the difficulty of old machines being brought in the makers of which are now defunct, and consequently new parts cannot be obtained.

"Now it is a rule I have always followed, and I have found it the wisest and cheapest in the end, whenever possible to replace a damaged part by a new one," says a practical repairman. "I don't believe in patching. I don't like jobs coming back to the shop.

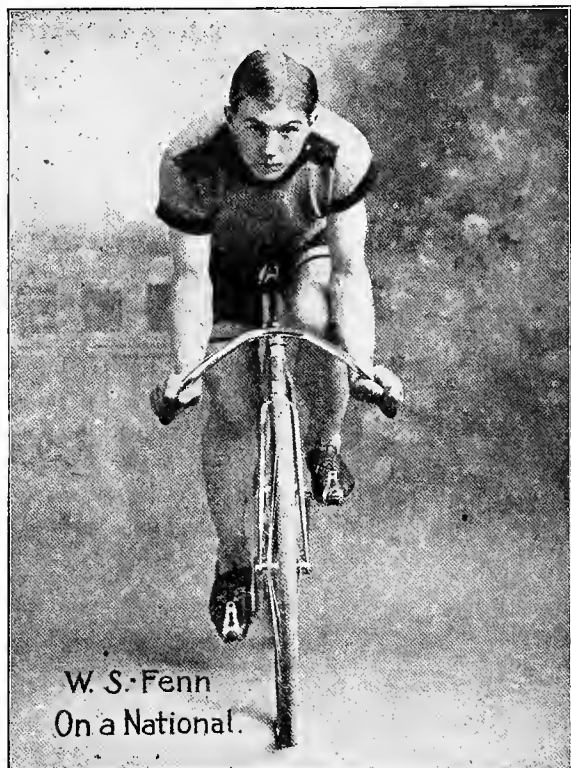
"One of the most common repairs is that of a stripped thread (particularly common in machines whose makers have 'gone under.' To make the new part, the first thing to be settled is the number of threads. To do this measure the number of male and female threads to the inch (or a quarter or half inch if the full inch is not possible, but make the length as long as you can in reason), add these together, and divide by two, and this gives you the threads to the inch.

"Having arrived at this, the next thing will be to take the number of threads per inch on the leading screw in the lathe. As a rule, this is two. Multiply the number of threads required by ten, and this gives you the number of teeth on the wheel to be placed on the end of the leading screw. Multiply the number of teeth on the leading screw by ten, too, and you will have the number of teeth of the wheel to be fixed on the end of the mandril as driver. Any sized wheel will do to connect this, and this gives what is known as the 'single gear.'

"An illustration works out thus: Suppose that there are 15 male and 16 female threads; these added together give 31, and divided by 2, 15½. Multiply by 10, and you have 155 teeth to the driven wheel. Multiply the threads on the leading screw (2) by 10, and you have 20 teeth for the driver. This will cut 15½ threads to the inch, but a difficulty at once arises.

"Change wheels of this size (155) are not supplied, and a 'compound gear' has therefore to be brought into use. Divide the number of teeth on the driven wheel by any number that will do so equally, say 5. This gives a result of 31. Put this 31 wheel on the stud to be driven by the 20 wheel. Now, take a third wheel, say 20, and multiply this by the same number which was used to divide the first (in this instance 5). Couple these four wheels, then, with 20 driving 31, and 20, 100.

"This method will cut any pitch of thread that may be required. The next thing to be done is to find out the distance to which the rest may be brought back before cutting. If this is not done properly, the tool will simply cut away the thread instead of making it deeper."



W. S. Fenn
On a National.

AMATEUR CHAMPION 1900

THAT "little blue wheel" TAKES THEM TO THE FRONT

July 21st Fenn at Vailsburg, N. J., beat Gascoyne the English champion in a five mile pursuit race in a little over 3 miles.

July 22nd, Fenn at Hartford, Conn., did it again on his "little blue wheel" in a little over 2 2-3 miles. :: :: :: ::

In commenting on the latter race the Hartford Courant of July 23rd, says:—"Gascoyne has recently come across the water and has a high reputation for speed and endurance. He has never been defeated in an unpaced race in England." :: ::

NATIONAL RIDERS ARE WINNERS

WRITE US ABOUT "the little blue wheel"

NATIONAL CYCLE MFG. CO.
BAY CITY, :: :: :: :: MICHIGAN



HIS ROYAL HIGHNESS



KING EDWARD VII OF ENGLAND

has had a coaster-brake applied to his tricycle, and his subjects are still talking about it.

NEARLY 1,000,000 AMERICAN CITIZENS

have been using coaster-brakes right along, and the number is increasing daily. It will be further increased if you yourself will do more talking (in print and by word of mouth) about the glories of the device and not merely sit still and wait for orders to drop in on you.

OF THE NEARLY 1,000,000,

the Morrows in use outnumber all other coaster-brakes combined. It is the standard of the world, and as such sells quickest and gives the greatest satisfaction.



ECLIPSE MFG. CO.,

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ELMIRA, N. Y.



THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should

Address us at P. O. Box 649.

NEW YORK, AUGUST 15, 1901.

The Spectre of the Trolley.

Of course, we've all heard the cry: "The trolley did it." That is, the cry that to the extension of the electric railway system is due much of the diminished interest in cycling and the consequent decrease of sales.

That the trolley, in summer at least, has become a vehicle of pleasure and is largely used as such does not admit of argument. Granting that this usage has contributed to the discomfiture of the cycle trade, an analysis of the reasons for this increased favor of electric locomotion is at once interesting and instructive.

Few will dispute that the average man is averse to physical exertion. As the proverb has it: "If wishes were horses, beggars would ride." Few men walk when they can be carried. It is this human failing upon which the trolley's favor rests.

The trolley affords rapid transit without

physical exertion. It carries one far afield—"far from the city's crowded streets," cheaply, quickly and agreeably—without effort and without thought of heat or hill or headwind, and the while "the cool wind fans the brow." The weak and the strong, the young and the old, the man and the woman, are on an equality. The pleasure is for all without distinction.

Far be it from us to minimize the bicycle, but, in an analysis of the sort, what may appear the odium of comparison falls on the manumotive machine. It requires physical effort; it requires that heat, hill and headwind be reckoned with separately and collectively. The weak and the strong, the young and the old, the man and the woman are far apart—the capacity of the human motor is measured by age, sex and individual limitations. What may be a dawdle for one is a "scorch" for the other; what may seem a hillock to one appears a mountain to the other.

The pictures are faithfully drawn. Naught is to be gained by "fooling the fancy or flattering the thought." It is a subject and a time for viewing things and conditions as they are, not as we would have them.

The bicycle will always have its uses and its devotees, and many of them. In the light of to-day, it seems that it will ever remain the cheapest, most economical and most convenient means of locomotion. But the twentieth century is marked out for a deal of wonder working, in which the saving of human energy will rank high. It may prove the "automatic age." In former years this "automatic idea" was developed largely as a means of saving money. We are now entering an era when the idea will be shaped rather to contribute to human comfort and to the saving of the physical forces.

To believe that the bicycle will stand still and fail to be carried to greater heights by this spirit of the times is to belittle human ingenuity and to place an absurd limitation on man's brain. For ourselves, we hold nothing of the kind. The "automatic idea" has already entered the cycle trade. The motor bicycle is proof of it. There may be doubters and deriders, but let no wise

man allow his doubts to deceive him. The automatic bicycle is the logical development. Those now with us may not be all that fancy pictures or that man desires, but, such as they are, they are enough to prove the idea practical and to lay the foundation for the perfected creation that time will evolve.

If the electric streetcar discomfited the pedal propelled bicycle, the automatic bicycle will yet return to discomfit the trolley. For all that has been and may be urged in favor of the trolley applies to the motor propelled bicycle, and then much remains to be said for the latter: It is, in substance, a "private trolley"; it solves the question of individual rapid transit; it solves the questions of storage and of long waits and crowded cars; it levels the hill, stills the headwind and equalizes age, sex and physical capacities. It affords exercise, i. e., physical exertion, when, where and in what measures the individual may desire it. It enables "the cool wind to fan the brow" and it imparts an exhilaration which no car, carriage, boat or other vehicle that moves on land or sea imparts—an exhilaration so glorious as to exceed description, and which no flight of fancy can fully compass—an exhilaration which must be experienced to be appreciated, and short of which no man is fully competent to express an opinion for or against.

Let the motor bicycle be but fully understood, and the "spectre of the trolley" which is supposed to now shadow the bicycle will disappear so quickly that none will care from whence it came nor why it existed.

Work for the Seeking.

For some time after the coaster brake came into general use repair men were kept very busy fitting them to old machines.

Indeed, it is probable that during 1899 quite as many of the devices were applied to old as to new bicycles. It was, of course, out of the question for this to continue.

But it is equally true that the fitting of coaster brakes to old machines did quite as much to popularize them, as well as to help the sale of new bicycles, as all other causes combined. A rider was much more likely to expend from \$5 to \$10 in having the much heralded device fitted to his old bicycle than to risk buying a new one with the coaster

brake, which was still an experiment, substituted for the regulation fixed gear.

During the present year the amount of work of this kind done by the average repair man has been very much less. The majority of the riders who were likely to adopt a device of this kind had already done so, and the remainder of them were much more deliberate in making up their minds. Outside of these two sections recruits were secured very slowly.

But there is no need to fear that the business of fitting coaster-brakes to old machines is at an end. There are still hundreds of thousands of the latter in use with the fixed gear still attached, and the owner of each is a possible customer. He may buy a new machine instead of having the old one changed over, but one of the two courses is pretty sure to be taken if he is an active rider.

At the present time the trade is very far from realizing the opportunity here presented.

The rush to have coaster brakes fitted to old machines is over. Riders who required no convincing, who needed no persuasion, have had the alteration made, and are daily experiencing the benefits of the device.

But there are much greater numbers who have yet to learn the virtues of the coaster brake—which has been truly termed the greatest boon the cyclist has had conferred on him since the introduction of the pneumatic tire. What is being done to cultivate this field?

Almost literally nothing. The trade sells or fits coaster brakes when they are asked for, and considers its duty done.

There are coaster brakes in plenty, and fixed gear machines waiting for them to be fitted. But little or no effort is being taken to make the connection, to bring home to the owners of these machines that they are foregoing an improvement that makes of cycling a different and an improved pastime.

The seller of coaster brakes and the dealer or repairer who fits them are both losing a great opportunity. Sell or fit the device, and thereby make a "bit" to keep the pot boiling these dull days, and revive the interest of yet another rider.

All this can be done, and easily. It only needs a little missionary work, and the trick is performed.

Contributing to Comfort.

Some day the trade will awaken to the fact that what a very large proportion of

riders want—although they do not even yet realize it—is greater comfort.

They want this, of course, without loss—or, what amounts to the same thing, without appreciable loss—of ease of running.

The days when the average rider went in solely for speed—or, what was virtually the same thing, for long distance riding—are gone, never to return with the present generation. Gone, consequently, is the disposition to endure much in the way of discomfort as a set off against the greater speed obtained thereby.

By way of illustration, there is the extremely small tire. It is to-day in universal use, notwithstanding the fact that it is utterly unsuited to the majority of riders.

The tire measuring two or more inches in diameter used in the early nineties long since disappeared. It was comfortable—how comfortable only those of us who tried it know. With it excessive vibration was a thing unknown, an ill we would have laughed at had it been held up before us.

By minute and successive gradations we saw the tire sizes come down, until to-day the inch and three-eighths disputes the title of standard with the inch and one-half size.

That such tires are, when properly inflated, faster, i. e., require fewer pounds of pressure to propel than the sizes in vogue when the air tire was first marketed is undeniable. To that fact, and that alone, they owe their present popularity.

But when that is said the story is not all told. A tire requiring less to drive it than another is the faster, of course, other things being equal. But if the power available for driving varies, quite a different result may be reached.

If, for example, the rider is protected from road shocks and excessive vibration, he is able to apply more power than if he were shaken up until fagged out.

As his fatigue increases—and fatigue is largely due to vibration—the power he is able to exert becomes less and less. This is especially true toward the end of the ride. Yet this is just the time when he has the greatest need of power, and, conversely, suffers most from the lack of it.

As the evil effects of small tires are less felt when speed is the prime requisite, so in the heyday of the scorcher and the long distance rider they did no great harm.

But now that cycling has taken on a different complexion it is just the other way.

Relief from vibration and consequent

fatigue is needed, even if it is not asked for. Larger tire diameters is one way of giving riders this relief.

The trade is looking around for a flip—something that will renew interest and cause more riding to be indulged in.

Here is one thing right at hand.

Far Eastern Markets' Awakening.

It really begins to appear that the long expected awakening of the Far East is close at hand.

In gathering data for the *Bicycling World's* export editions, the fact was made reasonably plain to us and additional advice but serve to strengthen our opinion. India, Japan and the Philippines are already awake, but, population considered, their purchasing capacities have not been even half distended. Speaking generally, it has been the European residents who have done most of the buying and riding, but the natives have become interested and some heavy orders should result.

It is not these countries, however, that we have particularly in mind. Turkey, Syria and Asia are the countries that are uppermost as awakening purchasers. We have already published some correspondence from these countries, indicating the arousal of cycling interest and elsewhere devote additional space to the subject. They are signs that the exporters cannot mistake and that must not be lost sight of. The Asiatic races have long been considered as without mechanical ability or ingenuity, but the letter from Burma, printed in another column, indicates that the idea is a mistaken one, the correspondent on the spot stating that it is the Chinese who do most of the repairing.

It is in the Far East that the great preponderance of the population lies—China alone holds one-twelfth of the world's inhabitants—and once aroused the demands of these teeming millions should mean a welcome influx of prosperity for the American cycle trade.

The tricycle to which King Edward recently had a coaster-brake applied is of 1897 vintage. In these days when "funds" are the vogue in Britain, it suggests that if the "privy purse" is too slender a fund for the purchase of a new tricycle for His Majesty is in order. Royalty should not set the bad example of riding cycles that are more or less obsolete.

CHANCE FOR AMERICANS

Attitude of English Tire Makers Creates an Opening—Chains vs. Belts.

London, July 31.—The English tire companies seem to be getting worse and worse in the matter of tires for motorcycles. I recently referred to my experiences with the Werner bicycle, and to the way in which the front wheel tire had worn down to the fabric in less than four hundred miles. I took the tire to the makers, and after they had kept it for a week, they wrote me that the tire was of the usual quality and workmanship, and that I could best explain how it had worn.

What this means I do not know, but the letter then goes on to say that, in the opinion of the makers, the machine had been ridden at high speeds, and this had caused the tire to wear. Fancy a tire manufacturer making such a ridiculous admission—an admission that their tires will not stand unless the machine is ridden slowly. I am now on the lookout for a tire which will last rather longer and at fairly high speeds, for, although I do not believe in furious riding, yet out in the country, when the road is clear, I do like to let the motor go. Unless the English tire makers can make tires which will stand motor work, they had surely better give up the business to those continental manufacturers who can do so, and also to the American single tube tires, which seem to stand better on motors than they used to do on cycles.

A good many makers of cycles are now awakening to the possibilities of the trade in motorcycles, and, as a result, nearly every maker has a pattern of this class of machine. I am bound to say that, so far, there has not been much originality, but this will doubtless come. In many respects there can be no doubt that the Werner scores heavily, but perhaps chiefly on account of the position of the motor, which is most accessible and does not get in the way of the legs. I have never found any difficulty with the balance of this machine, but if my idea as to the real cause for the wearing of the driving wheel tire be correct, namely, that the shivering of the front fork is responsible, it may be necessary to resort to rear driving.

In this connection I may remark that I am looking forward to a trial of a machine which is now in course of completion by a local repairer and cycle agent. The motor is placed in front of the head, as in the Werner, but instead of moving with the steering post, it is firmly attached to the steering socket. The driving band is carried to the rear wheel, and is crossed, the latter plan appearing to me to be rather unnecessary, having regard to the length of the belt em-

ployed. The Werner band runs all right without being crossed, so that a longer belt should be even better. Crossing belts always sets up a great amount of friction. I fancy that the machine will steer steadily enough, and, if so, the plan of driving the rear wheel from the motor fixed in front will certainly be better. The adjustment of the belt within reason is arrived at by mounting the motor on a swivel hinge at the bottom of the steering socket, and attaching the upper end of the cylinder to a segment casting, from the top of the steering socket. A couple of bolts and nuts allow the motor to be swung forward a little at the top, thus tightening the belt.

Brown Brothers, Limited, the well known factors, are also providing a method of adjusting the belt of their motor bicycle, but in this case the motor is mounted upon the lower front tube of the frame. Instead of being merely clipped to the tube in the usual manner, the motor is mounted on a slide, which, in turn, is secured to the frame, and the position of the engine can be adjusted on the slide in such a manner that any desired degree of tension can be applied to the belt. It is, however, worthy of note that a much greater tension is required upon the belt of a motorcycle than is merely necessary for driving, as a tight belt is essential for starting the motor, but not so much for driving the machine. It is for this reason that Brown Brothers are now experimenting with a chain driven motorcycle, the engine of which is fitted with a free clutch.

It is not often that we hear of a case of a motor cycle getting on fire and seriously injuring the rider, but during the last six months there have been two instances of this accident—if such it can be called. It principally arises owing to the flooding of the carburetors, when the rider has stopped and has failed to turn off the petrol supply. He then has to undo the small nut at the bottom of the carburetor, which, in the dark, is rather an awkward matter, as, when released, the petrol streams out with considerable force. Often the cyclist places his lamp on the ground, and sometimes to windward, so all is safe; but if he places it so that the petrol fumes blow toward it, there may be a flash and a general flareup, in which he may be seriously burned, especially if some of the petrol has got upon his sleeves, as frequently happens when undoing the bolt. Now, why not prevent this risk by putting a small tap in place of the bolt? The tap could be opened without the use of the lamp, and there would be no danger of the stream of petrol getting upon the clothes. The fact that such a tap is not fitted seems a further proof that manufacturers do not ride motors themselves. The latest victim of this omission was very seriously burned, and his machine was also considerably injured, all the tires being burnt and considerable other damage incurred.

DUNLOP DEFEATED AGAIN

British Monopoly Given Another Blow—Striking Instance of its Policy.

It has been well said that the thing which monopolies least desire is to have the light turned on them. A more intimate knowledge of the conduct of their affairs frequently augurs ill for their continuance.

The Dunlop Tire Co. occupies this position. Investigation is the very worst thing that can happen to it. A policy made up almost entirely of bluffing and browbeating has been pursued by it almost from the beginning. Until within a very short time, it has carried all before it, being, apparently, impregnable to all assaults made on it.

But the tables have been turned of late. Instead of being uniformly successful in legal proceedings instituted to harass or kill off all forms of competition, it has within the past year been the loser in no less than three actions, each of them of considerable importance. To the Wapshare and Flexifort defeats, referred to in these columns at the time, has been added a third, and one that must prove most galling to the big concern across the seas.

But for the principle involved, the case would appear to be one of the most trivial imaginable. The question at issue was whether a licensee of the Dunlop Co. should be permitted to shift the nuts which secure the wires from the edge of the rim to near the centre. The Dunlop Co. sought to have this change declared illegal, and failed most signally.

A brief explanation of the position of the Dunlop Co. and the tire concerns it licenses is necessary to the understanding of the case. There is in existence in Great Britain a legal method of curbing monopolies. It consists in preventing them from acting "in constraint of trade."

As a consequence of this, the Dunlop Co. licenses divers concerns to manufacture and market what is virtually an inferior form of Dunlop tire. These companies are divided into two classes—friendly and unfriendly concerns. In the former the monopoly is usually financially interested. The latter are permitted to trade on sufferance, hampered and hindered as much as is deemed safe.

With the increasing use of rim brakes in England, one of the latter concerns, the Midland, found it desirable, or even necessary, to change the position of the nuts used to secure the ends of their tire so that a rim brake could be used. In pursuance of this policy, the wires were made to protrude at points near the centre of the rim, instead of at the sides, as formerly. No other change was made in the tire.

This was seized as a pretext for vitiating the license by the process of declaring the changed tire an infringement of the Dunlop patents. But instead of proceeding directly against its makers suit was brought against a user of the tire, the Buckingham & Adams Co. In the lower court victory perched on the Dunlop Co.'s banners, but the case was repealed and reversed, the Court of Appeal having just rendered a decision in favor of the defendant company.

The verdict is hailed as a big victory for those opposed to the Dunlop Co.

RACING

On Wednesday, August 7, at Buffalo, the final of the one-third mile championship race was run, and Hurley had little trouble in disposing of Denny, the time being 45 2-5. The one hour championship, postponed from the previous day, on account of rain, was also finished, Wiley winning and covering twenty-five miles—unpaced—in the time. Walter Smith rode a two-mile exhibition, getting world's amateur record in 3:10. On Thursday the semi-finals and final of the one-half mile championship was run, Ingraham, of Boston, and Hoffman, of Butte, and Hurley and Grady being the winners in the former. In the final Hurley won, beating Ingraham in 1:09. The one-mile championship also went to Hurley, Losee, Mettling and Hoffman being the defeated men. Ingraham also captured the one-mile handicap, while Smith rode a mile exhibition, paced, in 1:32 2-5. The five-mile championship was run off on Friday, the order at the finish being Grady, Hurley, Schade, of Buffalo, and Morton, of Toronto. Time, 12:01 1-5. Heats and semi-finals of the two-mile championship were also gotten out of the way, leaving Grady and McConnell and Hurley and Hoffman to fight it out in the final. The next day, Saturday, the latter was called, and again the Chicopee had proved just a shade too good for Hurley, McConnell getting third. Time, 4:33 1-5. On the same day Fulton won the twenty-mile championship, motor paced, in 34:17 4-5, Smith being taken with cramps. Hedstrom and Henshaw gave a one-half mile exhibition on a motor tandem, breaking world's record of 40 seconds, their time being 39 1-5.

With the coming of Monday, August 12, the scene shifted at Buffalo and the professionals had their turn. Heats and semi-finals of the one-fourth mile professional championship were run off, Kramer and Lawson and Taylor and Freeman qualifying for the grand semi-finals. With this exception the day was principally devoted to exhibitions, which on the fast four-lap board track at the Stadium, were productive of some remarkable records. G. W. Butler, on a motor bicycle, was reported to have ridden five miles in 6:18, beating champion's time of 7:16 2-5, but his motor went wrong in the fifth mile and was timed at that point. Hedstrom and Henshaw then made a new mile record for motor tandems, their time being 1:18 2-5, as against 1:20 1-5, the previous best. Elkes's turn came next, and he rode five miles, paced, in 7:21, world's record, as against Munroe's 7:27. Fulton and Smith, amateurs, wound up the day's sport by going for the five-mile record. Fulton got it, 8:02 1-5, but half an hour later Smith came out and reduced the figures to 7:53. On Tuesday the one-fourth mile championship was finished. Lawson again showed his speed abilities by defeating Kramer in a semi-final and Taylor in the grand final. Time, 1:11 2-5. A ten-mile motor tandem

championship was won by Henshaw and Hedstrom in the fast time of 13:22. Kramer won the two-mile from scratch, beating out Fenn, who started from the same mark. G. M. Holly, of Bradford, Pa., on an American motor bicycle, with an American motor, rode five miles in 7:10 1-5, supplanting the previous best, Champion's 7:16 2-5. Throughout the racing the attendance has been gratifyingly large. Six and eight thousand people frequently attended and went wild with enthusiasm.

Notwithstanding a very decided improvement on the part of Ross on Sunday at Vailsburg, the Jerseyman was no match for Eck's latest find. That Munroe has speed is proven. Whether he can reach the first flight in competition with the big men remains to be seen. In a twenty mile paced race against Ross he came within a few seconds of the record, and did not exert himself in the slightest degree until nearly two-thirds of the distance had been covered. He was content to remain in close attendance on his rival during the early part of the race, and when he made his effort he easily secured the lead. He covered the twenty miles in 30:19, the last ten miles being ridden in 15:03 4-5, and the last mile in 1:27, Ross being two and one-half laps behind. The latter had some trouble with his pace after Munroe had assumed the lead, but it did not affect the result. An Australian pursuit race furnished the day's sensation, Bleeker and Colgan riding nearly eleven miles in the final heat before the latter gave up the fight. First Colgan gained on Bleeker, at one time being within a quarter of a lap; then Bleeker got nearly all this distance back, but the end seemed far off when Colgan suddenly quit. An effort was made to have the men agree to divide the money, but before Colgan could be asked he gave up. He was utterly exhausted, having to be almost carried to the dressing room, while Bleeker was in but little better shape. Time for 10 3/4 miles, 25:43. There was a blanket finish in the five mile amateur handicap, Glasson (200 yards) winning; Forrest (100 yards), second; Harry Welsing (scratch), fourth. Joe Nelson broke the five mile amateur record, his time being 8:13 1-5, motor paced.

A National Circuit meet at Madison Square Garden, New-York attracted the best audience of the season on Friday night. The racing also outclassed anything witnessed there, and compared favorably with that seen anywhere. Records fell, too, one of them being a world's record on any track. This occurred in a semi-final of the half mile championship, when Kramer covered the distance in 58 seconds, thanks to the fast first quarter of Hausman's. Kramer also won the final, defeating Cooper in a free race by a comfortable margin. In the mile handicap Fenn broke two records, one his own, in his heat and the final. In the former he finished first, after a magnificent struggle from the scratch mark, his time being 1:57 4-5. In

the final he took two seconds off this, although unplaced, the race going to Wilson in 1:55 1-5. Fenn's time is indoor record. E. D. Stevens won the mile 2:10 class.

In the probably record time of 5:02 1-5 for a half mile, Kramer won the championship race at that distance at Manhattan Beach, New York, on Saturday. Collett had disposed of Lawson in the semi-finals by jumping away from the rear in a crawling race, and was made to take exactly the same medicine from the Pierce rider in what was even a more miserable loaf. The band played the "Dead March," while the spectators alternately hissed and applauded. Jack Green won a race, the mile 2:10 class, and Cooper surprised himself by doing the same thing, this being the five mile handicap. In the latter Lawson got third after a great sprint. The motor paced race in heats between the two "dead ones," Elkes and McFarland, was a fizzle, the Glens Falls lad winning hollow victories in two straight heats at one and three miles. The time in each was good, however, 1:41 2-5 and 4:40, respectively.

Champion is doing pretty nearly all his winning this season, his success being in marked contrast to the previous lack of it. At Charles River Park, Boston, on August 7 he defeated "Major" Taylor in a match race in heats, at the same time annexing the mile record. This was done in the first heat of the race with Taylor, Champion winning in 1:29 4-5, and he repeated the performance in the second heat, at five miles, the time for this being 7:32 2-5, also close to record. Both were, of course, motor paced. Kramer added to his score of points by winning the one-third mile National Championship, beating Lawson in the grand final. Taylor ran off the track and fell in the semi-finals. Jack Green, the Englishman, won the mile 2:10 class, and Wilson got across the tape first in the five mile handicap.

That motor paced racing is a game of see-saw was illustrated at Madison Square Garden, New York, on Monday night. Two days previously Moran and Nelson had met at Boston, and victory went to the ex-milkman. Notwithstanding this, Nelson turned the tables on his rival by almost riding rings around him at the Garden. The distance was fifteen miles, and Moran was lapped again and again, being nearly nine laps in the rear at the finish. Time, 26:47 2-5. A novel feature of the race was the use of single motor bicycles for pacing, the small track rendering this desirable. In this case, at least, the innovation was a success. In the amateur races, Schreiber won the five mile lap, after a close contest with Rawlins, of New Bedford, Gus Welsing being third.

Unbeatable at anything up to and including one mile, Marcens Hurley must rest content with the laurels won in races at these distances. He stands head and shoulders

above his competitors on his chosen ground, but when he leaves it he meets his match. This was made plain at Buffalo last week. Out of eight amateur championships run Hurley competed in six and won four, getting second place in the other two. His victories were in the one-fourth, one-third, one-half and one mile. In the two-mile he was just beaten out by T. J. Grady, of Chicopee, Mass., while in the five-mile Grady repeated the dose a little more easily. The twenty-mile championship went to Joseph Fulton, of Brooklyn, and Wiley, of Albany, easily carried off the hour race.

Ben Munroe's rapid rise to fame was checked at Hartford, Conn., on August 12, Walthour defeating him handily in a twenty mile motor paced race. The time was fast—30:51 2-5—but was some seconds outside of Munroe's easy ride at Vailsburg the day before. It was the first meeting of the two Southerners, and the band struck up "Dixie" as they came on the track. Walthour got the lead almost at the start, and at the end of the third mile got his first lap. Following his pace like an automaton, he gradually drew away, until at the finish he was almost a mile ahead. Munroe appeared to be a little off form, and was fairly outridden.

Until his motor machine went wrong at ten miles, McEachern made a good fight against Stinson, of Washington, at Baltimore on August 8 in a twenty mile race, and even continued it after that. The Cambridge man was in great form, however, and would probably have won anyway. He set a hot pace from the pistol fire, doing the second mile in 1:28 and the first three in a total of 4:44. The five miles were finished in 7:42, and the sixth mile was again made in 1:28. After this the pace was slower. McEachern hung on to the leader's wheel until the last mile, when he weakened, and Stinson finished a lap ahead of him.

It was Iver Lawson's day again at Asbury Park, N. J., on Thursday, August 8, when the famous old track was once more the scene of a cycle race meet. Lawson beat out Kramer in the semi-finals, and repeated the dose to Wilson in the grand final. Bardgett got the mile handicap from the one hundred yard mark, and Maya placed the mile 2:10 class to his credit. Michael rode an exhibition two miles in 3:31, and Elkes defeated Urquhart, of Boston, in a five mile match race.

That Walthour is bidding for championship honors was again demonstrated at Providence on August 9. In a fast race, State records from eight to twenty-five miles going by the board, he defeated Moran at twenty-five miles, motor paced. Time, 39:09. It was a fairly close race until the fourteenth mile, when Moran was lapped. This lead was gradually increased to two-thirds of a mile, although it took him four miles of hard work to get the last lap.

AMERICAN BICYCLES ABROAD

An English Dealer Gives the Exact Reasons why They are in Demand.

"The Westerton Cycle Stores" was the name which loomed up before the Wheeling man as he rode through the Kentish village. You won't find "Westerton" on any map of Kent, says that English publication, but for several reasons the real name cannot be given, and "Westerton" will serve as well as any other.

Westerton is a village of normal size and habits. In the village street there are about a hundred to a hundred and twenty houses, four public houses, a venerable ivy covered church and a modern red brick workhouse standing almost cheek by jowl, and around



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the neighborhood farms and small holdings and country residences, rising to the big estate of a political peer.

The proprietor of the cycle stores did not appear to be suffering from "slump," but, as the representative of a class which is not fully understood in the cycle trade, the Wheeling man proceeded to attack him. His views may be right or wrong, but they are the views of a practical man, one who has made a certain success of the cycle trade, and who may be taken to hold representative opinions.

"For what do you find the greatest demand?" he was asked.

"For these machines, at £7 10s.," replied the proprietor, pointing to some obviously American machines.

"American?"

"Yes. I'd rather have English, but I couldn't get them at the price until lately, but I'd rather sell an English machine than an American."

"Does it make any difference to your trade here?"

"No. You see, everybody knows me, and they come for my machines, and they don't care who the makers are if I guarantee them."

"It rests with you, then?"

"That's about it. I know what's what, and if I find that a firm can make a good bicycle at the right price, that's all I want."

"Is your demand all for cheap machines?"

"Well, it's this way. I do a big hiring trade, and I want something cheap and strong, particularly strong. It needn't be fast or have all the latest improvements, but when the farm laborers get onto a bicycle they want something that will stand some knocking about. I sell a few of the better machines, but not many. Last year I sold about £200 worth of new machines, and only about £50 of that was £10 and over. The man who wants a high grade bicycle goes to the town for it. He only comes to me if he knows me personally, and not always then. But I get these cheap machines and hire them out, and, in due course, sell them at reduced prices, and so I make my profit."

"I charge half a crown a day, and the only difficulty is to explain to the people that it is the same whether they are riding all the time or not. Their idea is to get as much as they can for the money, and they'll go on riding till they drop as long as they have half an hour left. That's what makes it so heavy on the machines, and why I want something that will stand knocking about."

"But don't you get that with English bicycles?"

"Yes. But it's only lately that makers have begun to understand what we want for this sort of trade. We don't want Dunlop tires, or half-inch chains, or free wheels, and so on. What we want is a bicycle that will stand a rough laborer pulling it about all over the place. He doesn't want to go fast, and he doesn't mind hard work, but he does want something that won't go wrong."

"In fact, it's the Waterbury watch over again?"

"That's it exactly. There's a lot of money in this line, but the people haven't much money to spend, and they want the most they can get for it. I always recommend a high grade bicycle where I know they can afford it, but most of my customers never had £10 all at once in their lives, and they're never likely to. In fact, I take most of my money in instalments, and, being always about, I can keep an eye on everybody. I haven't made a bad debt yet."

"Had any machines stolen?"

"No. I'm out of the way, and, besides, I don't hire out a bicycle to anybody I don't know, unless somebody comes as a reference."

"But, don't you forget it, there are plenty of buyers for cheap bicycles. I mean about £7 or £8, and you're not spoiling the other trade, because they'd never dream of paying £10 or over, and I think it's far better to sell them something that you know will last them, even if it isn't light or fast, than some of the rubbish that is sold as 'special bargains,' and so on."

THE TRAVELING SALESMAN

Manager Southwick Sums up his Attributes
—Tact the Chief Essential.

The salesman should first remember that his value is gauged by net results, including not only such orders as are secured at once, but the general effect upon the future, says F. A. Southwick in an article dealing with the travelling salesman. The business is presumed to be perpetual, and often the work of the salesman will yield better value if directed to strengthen the house for the future rather than to secure small present orders.

In these strenuous days the discriminating manager has use only for those salesmen who are honest, reliable, thorough, earnest and undivided in their allegiance.

Don't try to impress your customer with your superior knowledge. You are the seller. He is the buyer. Neither is subserviency nor timidity productive of good results. Show a willingness to listen and fully understand what he thinks he wants to purchase, and to assist him in getting it. Where your reason shows that he is making an unwise choice, you can with tact, and without in any way suggesting that he is either ignorant or stubborn, show him the better way. Do this in such a way that your manner will impress him that your training and experience are better guides, and that your suggestions emanate from a sincere desire to give him the best satisfaction.

Tact is a talent that should be continually cultivated, as it is the tactful man that is successful. A recent writer has said that it is superior to genius, and I am not prepared to dispute the point. You can hardly name a phase of political, commercial or social life where the man of tact is not ahead. I have seen ability and brains relegated to the rear or kept in a subordinate position while the man with the hypnotic art forged ahead. Don't misunderstand me, without brains and ability no success is permanent, but with those for the charge and tact for the match, bull's-eyes are a sure thing.

If the salesman secures orders simply by the argument of lowest prices, then it matters little, and he need read no further in this article. But if his house is handling or making a good line, it should be his strongest argument that there is no competition on price. If his wares are equal to those of other makers, they are of equal value, and in these days of combinations and gentlemen's agreements it becomes all the more important that the question of price be left out of any argument. Within my own experience I have seen two manufacturers attain to the highest rank by freely advertising a high price and a corresponding high quality. A failure on the part of their sales-

men to secure the higher price was looked upon as a confession of failure, and they were "allowed to resign."

At the risk of being called passe, I repeat what others have often said. Don't disparage competitors. It will take all your skill and ability to properly present your own line. Decrying the other fellow only advertises him, and if I found the salesmen of other people jumping on the company I now have the honor to represent it would immediately cut down our advertising appropriation. You should be familiar with the points wherein your house considers its goods better than those of other makers, and if forced to compare, should honestly point out the advantages claimed. Even then avoid criticism or any inference of ignorance. Seek rather to bring your customer to look at the matter from your point of view. Make no statements of which you are not absolutely sure and which you do not yourself believe. Truth is ever convincing; the slightest untruth throws doubt upon the whole case. Many times has justice miscarried because some witness in his enthusiasm has drawn from his imagination for his facts.

Do not ever attempt to discuss a subject on which you are ignorant with the assurance of knowledge. Cultivate a knowledge of uses of goods you handle and ascertain the technical meaning of the peculiar language of the craft. Absence of such knowledge will inevitably lead to some incorrect use of a technical word and thus immediately convey the impression that you are not master of your business. Then confidence is gone and failure is sure to meet you. -The correct and easy use of the terms of trade relating to the goods you handle will contribute largely to convey the idea that you know your business and your advice can be safely followed.

As stated in the beginning, it is net results that count. The profit yielded and the cost through the salesman of securing that profit are factors which determine the length of service or rate of advancement. The house cannot take time always to analyze critically the expense account and to point out where it should be different. In most cases where unreasonable expenses or unsatisfactory returns continue, it is easier and more judicious to dispense with the salesman's services.

Finally, brethren, and this is my hobby, devote a reasonable amount of time to the study of the technical literature relating to your line, and to such as will give you a better insight into the source and reason, the intent and use of the goods you are handling. It is not enough to be familiar with the catalogue of the house. Learn of the materials entering into the composition, the origin, history and destiny of every piece, and familiarize yourself with the various processes necessary to make the harmonious whole.

"Defects (in motorcycles) and How to Remedy Them." See "Motorcycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York. ***

VARIABLE SPEED GEARS

Will They Follow the Coaster Brake?
Here's One From Abroad.

"Tips" on the course of future construction are quite as likely to go wrong as to turn out to be "good things." Therefore it is hazardous to prophesy too confidently regarding variable speed gears. It is enough to say that such gears are the logical followers of the coaster-brake.

It may be that their adoption will be postponed for some time, just as the popularity of the coaster-brake was of the belated order. But it should take place without any very great delay. It would be the next step in the perfecting of the bicycle, giving the rider two or more gears instead of the one, to which he is now restricted.

There are good, changeable speed gears, both in this country and abroad. In the latter place especially the number is being added to. One of the devices most favorably spoken of is the Paradox, a British production, to which reference was made in these columns a short time ago. Its advantages are thus summed up by the Irish Cyclist:

"The Paradox two-speed gear actually accomplishes the apparent impossibility of expanding the rim of a chain wheel without disturbing the pitch," it says. "This invention furnishes a simple and effective method of varying the relative speeds of chain-driven mechanism. Some of the advantages claimed for it as specially applicable to cycles are as follows:

"(1) A wide range of speeds. With a 28-inch driving wheel and 16 half-inch pitch teeth on the back hub, the two gears are 63 and 80½; with 17 teeth they are 59½ and 76; with 18 teeth, 56 and 72; with 19 teeth, 53 and 68, and with 20 teeth, 50½ and 64½.

"(2) Great strength and absence of any loose revolving parts. The Paradox gear is not delicate. It is a single chain ring, and is firmly fixed at either of its two diameters, forming, to all intents and purposes, a solid wheel. A crank pressure, sufficient to distort the bicycle frame laterally, has no effect upon the chain wheel. There is a 'solid feel' and a total absence of spring about it.

"(3) Minimum of friction. The chain ring is circular at both speeds, and the friction is exactly that of an ordinary well cut chain wheel of diameter corresponding to the gear at the moment in use, and no more. Hence all internal, epicyclic, or annular gears, sun-and-planet motions, or elliptical wheels are dispensed with, while it is also lighter than most of the existing variable gears.

"(4) Applicability to existing machines. Any cycle with an existing sprocket wheel of 23 teeth at 1-inch pitch, or 46 teeth at ½-inch pitch, will take the Paradox gear, without disturbing the chain line.

"(5) Gear can be changed while riding at any speed. In connection with this it should be noted that, unlike some gears now in use, there is no 'switching in,' or attempting to establish a connection between a stationary wheel and one in rapid motion. The rider effects the change of gear while free-wheeling as deliberately as he pleases, and resumes his pedalling at any convenient rate. A small lever on the handlebar is lowered to lower the gear, or raised to raise the gear, giving an automatic free wheel in mid-position."

BICYCLES IN BURMA

Some of the Discomforts to Which Riders are Subject—Asiatic Interest Aroused.

During the cold season—say, 80 degrees Fahrenheit in the shade—this city is one of the most perfect cycling countries in all Asia, says a correspondent writing from Rangoon, Burma. There was a time when, from 6 to 8 o'clock every morning, between chota hazri and breakfast, a hundred Englishmen and Englishwomen might have been encountered in the course of one's morning run round the delightful paths of the Royal Lakes, that fairyland of tropical color, set off by the majestic golden spire of the Great Pagoda. The novelty has worn off a little, but many cyclists cling to their wheels as ardently as ever, and when the band of the English regiment is announced to play in the Dalhousie Park the long rows of cycle stands are always in full demand. During the monsoon rains a good many men keep themselves in the pink of condition by doing their constitutional on the wheel in a heavy downpour, and return to their bungalows cool, drenched and happy, and make straight for the morning bath.

Along the river banks the country is flat, as in all deltas, and there is not the same argument in favor of the free wheel as in countries with a more varied contour. But away to the north, along the fine highroad to Prome, there are one or two exciting hills to negotiate.

The one indispensable accessory for the rider in Burma is a whip, or a stout bamboo. The native dogs have no sense of the fitness of things, and have an irritating habit of charging one's front wheel as if it were a cow. The buffaloes which one encounters at almost every turn of the road are also an uncivilized race, and mere courage in shaving past them does not always avail. During this very season one of them took a cycle and its rider bodily upon its huge horns and tossed them away with terrific force, with fatal results.

Except in Mandalay, which has some magnificent roads, the white man whose lot is cast up country is limited to a very small area for cycling exercise, so far as comfort is concerned. The captains and engineers of the Irawadi steamers frequently carry machines with them, in order to indulge in a little bone shaking in the villages at which they tie up for the night. Oddly enough, men who would never dream of entrusting their favorite wheels to the groom or the gardener at home do not hesitate to leave the whole task of cleaning and oiling their machines to the native syces or body servants in the East. The consequence is that the average life of a cycle is immensely reduced, and this is why some lukewarm votaries of the wheel have gone back to their

Australian walers or their little Burmese ponies.

Among the Asiatic races, however, the cycle has come to stay. John Chinaman believes in the wheel, and the best native repairers are of this race. His manner of dress does not interfere with his enjoyment of the exercise in the least. It is otherwise with the native of India or the true Burman, whose loongyi—a sort of cotton petticoat—is sadly in the way, so much so that he sometimes adopts the device of the padre, and takes to a lady's mount. As a general rule, however, the young Burman prefers to display his manliness by tucking up his skirts in the manner of a Bluecoat boy. In his case, however, this results in a plentiful display, not of yellow stocking, but of elaborately tattooed thighs, so completely covered with grotesque designs as to give the effect of fancy dress smalls.

The Retail Record.

CHANGES.

Versailles, Ohio.—Jos. Manier, jr., succeeds Manier & Pequignot.

Ivoryton, Conn.—Bushnell & Behrens succeed Clarence Bushnell.

Coldwater, Mich.—Shugers Cycle Co., Geo. Shugers retires, and Frank Shugers will continue business under same name.

Mankato, Minn.—Gormer Jones succeeds Owen & Jones, Edgar Owen retiring.

NEW STORES.

Paw Paw, Mich.—Alva Norwood.

Roanoke, Ala.—Charles E. Tucker, repairing.

FIRES.

Rochester, N. Y.—Irving I. Legg.

Esecondido, Cal.—E. M. Churchill, damage small.

Marquette, Mich.—F. H. Hoard, loss \$2,000, partly insured.

Punched the Doubter's Proboscis.

Two English dealers were recently in court because of a rather unusual and amusing occurrence. It appears that one of them displayed in his window a damaged bicycle, to which was attached this striking placard:

"Are Royal Oak cycles well built? This machine has been trampled upon by eight horses and run over by two brakes, each containing thirty-two people, and not one joint has started—a most striking testimonial to the excellence of the workmanship."

One of his rivals doubted the modest assertion, and entered the shop to make a closer inspection of the machine. He was ordered out, and not moving quickly enough, he was assaulted by the proprietor, who broke his nose and destroyed his sense of smell. For this the aggrieved party asked the court to assess damages.

"The Motor: What It Is and How It Works." See "Motocycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York. ***

PLAYING MONKEY

Amusing Efforts to Imitate the Bicycling World and how They are Viewed.

Cycle journalism has witnessed nothing more amusing for many a day than the efforts of one of its "lame ducks" to imitate the Bicycling World's special export editions, printed in English, French and Spanish.

According to some accounts, the "lame duck's" issues are to be published in English, Russian and Yiddish, and are to carry the ads. of Dr. Munyon's tonics and Dr. Beecham's pills in order to assure circulation.

At last reports the solicitors for the "lame duck" were having some interesting experiences. All ads. look alike to them, and, as a result, jobbers, price cutters and every one else with a dollar in sight or out of sight are being urged to come in and help this "grand, glorious and splendidly original" effort "to place the American manufacturer properly before the foreign trade."

One of these solicitors unexpectedly had the wind taken out of his sails last week. He approached a possible advertiser, and, after spinning an elaborate story, asked his support of these all-comers export editions.

"Why," responded the possible advertiser, "don't you think you are imitating the Bicycling World people a little too closely? They have just issued their export editions, which are all the trade can ask or desire."

"Why, we didn't know that they were publishing anything of the sort," rejoined the more or less cheerful liar.

"Then you evidently don't know enough to get out an export edition," snapped back the possible advertiser, piqued at the bald lie.

"Fulwel" was a Fraud.

A largely advertised chemical to preserve tires, which has been sold under the name of "Fulwel," has been declared by the German courts to be a fraud. The experts who analyzed the tire preserver found that the fluid consisted of two-thirds of linseed oil and one-third of a color substance, being nothing more nor less than a compound used for staining floors. As it was proved that the mixture injures the tires, making the rubber brittle until it breaks in all directions, the court imposed a heavy fine on the "maker."

Computing Chainless Gears.

Although often given, the formula for calculating gears, especially the gear of a chainless bicycle, frequently escapes the mind. Here is a ready method:

Multiply the inches of wheel diameter by the number of teeth on spur wheel of crank-shaft, divide by teeth on spur wheel on forward end of connecting rod, multiplied by teeth on cogged wheel at rear of rod, and again divide by the number of spurs on the back hub.

If You Are Interested in Automobiles



WILL SURELY INTEREST YOU.

It is published for the information of the average mortal; no dictionary of mechanical terms is needed to understand it.

**PUBLISHED EVERY THURSDAY
AT 123-125 TRIBUNE BUILDING,**

NEW YORK CITY.

**\$2.00 PER YEAR.
10 CENTS PER COPY.**

SAMPLE COPY ON APPLICATION.

Turkey Begins to Awaken.

Inspired by the inquiry from the Bicycling World, Consul Thomas H. Norton, of Harput, Turkey, has written to the State Department at Washington giving, in addition to the information already published, the following valuable points on the class of bicycles most likely to be acceptable there.

"The types of wheel which will find ready sale here should be simple in style, provided with brakes, and as low priced as is consistent with durability and the use of first class materials," says Consul Norton. "The climate is hard on caoutchouc, and in the choice of tires it is necessary to bear in mind the frequency of stones on all oriental highways.

"It is desirable to study methods of packing frame and wheels so as to insure the maximum of economy in cubic space for the long ocean journey to Samsoun, the nearest point on the Black Sea, as well as low weight for the two or three weeks' trip over the mountains to this city. The packing should be such as to effectually prevent any damage from the continuous jolting and rubbing during this overland journey.

"Anatolian female garb and riding customs are such that the diamond frame will probably meet all demands made for some time on the agency."

Another Automatic Inflator.

Many readers will remember the Pneumo automatic pump which was exhibited at the last cycle show. It was only one of a large number of similar devices that have from time to time been invented and sometimes placed on the market, but it was noteworthy as being about the most promising thing in this line yet to see the light.

From the "other side" comes the description of a self-inflating valve which appears to be a pretty good copy of the one referred to. It has for inventors two of the directors of the Quadrant Cycle Co., and presumably will have the support of that influential concern in the process of marketing.

"We have not looked with very much favor on the various devices which from time to time have been brought out for the purpose of making tires self-inflating," says Cycling, in noticing this valve.

"Several of the ideas were very ingenious, but too many complications were usually present. The popular test has shown that cyclists generally did not appreciate the inventions, and we can call no apparatus to mind which has attained anything like the success which a really good contrivance of this kind might command.

"We are inclined to think, however, that the latest invention of this nature should advance matters considerably. We have only seen rough sketches of Lloyd and Priest's pump, but we are very favorably impressed by it. In the first place, we admit an inclination to be favorably predisposed, as the inventors are practical men and very well known in the trade.

"The simplicity of their invention is another great point of favor. A single tube

comes through the rim, just as the ordinary valve stem, and in this is contained all the mechanism. This consists of a plunger or piston, in contact with the inner wall of the air tube, and working up and down in a tiny cylinder, thus drawing in air when necessary. The softer the tire the greater stroke does the piston give, and the more air is drawn in. When properly inflated the tire scarcely bears on the piston, and no more air is pumped in."

"Sizing up" Customers.

Long ago some dealers learned that the secret of success was to give their customers what they wanted.

It did not make so very much difference whether it was good for them or not; if they desired it strongly there was nothing to do but to give it to them. By taking the opposite tack many concerns have come to grief, realizing their mistake only when it was too late to correct it.

The rider who wants a cheap machine, one that is strongly built and designed to stand rough usage, is not to be cajoled into taking something entirely different. Even if the financial part of the transaction did not better him a better machine would frequently be of less service. A little extra weight makes very little difference to him, especially if it purchases immunity from trouble.

But where a prospective purchaser is able to pay more if he can be convinced that the extra value is really there, it is folly to sell him a cheap machine without trying to persuade him that he is making a mistake. For some things the \$20 bicycle is just as good as the \$50 one, just as the cart horse will haul a cart to better purposes than a speedy nag. But no one conversant with the subject will assert that the former is as light, as easy running, as handsome or as well made as the higher priced machine.

It is obvious, therefore, that one of the first things a dealer should learn to do is to "size up" his customers. Such a course will undoubtedly work to the advantage of both.

Brookes Brings Saddle Suits.

J. B. Brookes & Co., the well known English saddlemakers, are proceeding against a dozen or more concerns not only for infringements of their patents, but for payment of royalty dating back several years. As a result, the alleged infringers have combined to fight the suits, and a situation not unlike that existing in this country prevails.

Chainless Motor Bicycle Arrives.

The chainless motor bicycle is in sight. An experimental machine, run by a gasoline motor and with bevel transmission gear, the product of a Hartford factory, has made its appearance on the streets of that city. Good results are said to have been obtained from the running tests made.

End of the Arc.

The Miller Mfg. Co., Torrington, Conn., was yesterday sold by the trustee, C. S. Dikeman. The company made the Arc bicycle lamp and was supposed to be doing a fair business.

WATER PAWNSHOPS HURT TRADE.

A curious state of affairs has been divulged at Vienna, where the cycle dealers complain about the strong competition in the sale of machines by the municipal pawnshops.

It appears that a large number of pawned cycles is annually left in the hands of the authorities, who first found it difficult to dispose of this property. Two years ago it was found necessary to build special rooms to store cycles, and since then all unclaimed cycles are repaired and "touched up" by experienced workmen. The sale of these machines is now carried on as a regular business, and, owing to the cheap prices, a large number of buyers prefer to deal with the pawnshops, with whom the cycle dealers are unable to compete. The sale of second hand machines is a big item in a dealer's business, and the interference of the pawnshops spells ruin for many of them.

How They Escape the Heat.

Bicycle enamellers are lucky in having the great bulk of their work to do when the weather is cool. Very little enamelling is done after the summer sets in, and the men thus escape being shut up in a close room with a temperature that is almost unendurable. Dust and good enamelling are irreconcilable, and the workroom must be so tightly closed that it is almost dustproof. When to this is added the presence of the oven, radiating enough heat to warm the room even in winter, the conditions that would prevail during the dogdays can easily be imagined.

Residue Causes Trouble.

Apropos of the heat generated by friction in connection with back wheel brakes on the hub or applied to drums contiguous thereto, attention is drawn to the effect of such heat upon the lubricating oil used in connection with all adjacent parts. It is pointed out that the warmth slowly evaporates the oil, leaving behind a gummy, sticky residue, which, to avoid trouble, should from time to time be dispersed by injecting a little kerosene into the bearings and joints.

HIGH GRADE

wheels must have the
best equipments.

There is nothing that gives more value for
the money than the use of the

MORSE TWIN CHAIN

**NOISELESS IN MUD, WATER OR
DUST AND ALWAYS EASY RUNNING.**

The only chain having **Frictionless
Rocker Joints.** Insist on having the
Morse Twin Roller. Fits regular
sprockets.

Send for Catalogue and
Trade Price to

Morse Chain Co., Trumansburg, N. Y.

HAND AND FOOT PUMPS,

Oilers, Repair Tools,
Valves, Name-plates, etc.

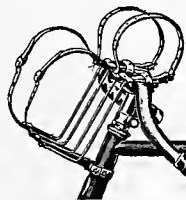
Spelter Solder

Sheet Brass,
Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn.
Depots: 210 Lake St., Chicago.
423 Broome St., New York



**LAMSON-PETERSON
LUGGAGE CARRIERS**

The most
serviceable made.

MEQUIER & JONES CO., Portland, Me.

WANTS AND FOR SALE.

15 cents per line of seven words, cash with order.

JOBBER, ATTENTION.—Bicycles stripped in lots of from 500 to 5,000 at special prices that are very attractive for early delivery. Wise buyers will communicate immediately with "E," care Bicycling World.

NO. 2 LOCOMOBILE STEAM MACHINE, good as new, ready for immediate delivery, and guaranteed. Price \$485.00. A. L. Dyke, Auto Supplies, Office Linmar Bldg., St. Louis, Mo.

WANTED FOR CASH—Jobs in Bicycles and Bicycle Sundries. T. C. Bradford, Wilmington, Del.

OILERS.

"PERFECT"



25c.

"GEM"



"LEADER"



10c.

"STAR"



We make oilers for almost the entire trade. The quality of our oilers is unequalled.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.

**WOLFF-AMERICAN
BICYCLES.**

STEARNS BICYCLE AGENCY, - Syracuse, N. Y.

**FAUBER PERFECTION
HANGER.**

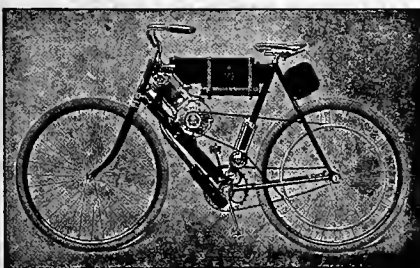
Unequaled in any of the Points which make
a PERFECT Hanger.
LIGHT, SIMPLE, DURABLE.

W. H. FAUBER, Manufacturer, CHICAGO, U. S. A.

**THE LEADING HOUSE
FOR
TIRES, SUNDRIES & TOOLS**
GOODS UP TO DATE PRICES TO PLEASE
BROADWAY BICYCLE & SUNDRY MFG CO.
7 & 9 WARREN ST. NEW YORK.
SEND FOR OUR CATALOGUE AND
MONTHLY BARGAIN SHEET

THE AUTO-BI

IS THE ORIGINAL OF THEM ALL,
AND NOT A COPY.



It has the best mixer ever devised.
The motor is carried in its own bed.
The electric circuit is absolutely
simple.

The battery can be renewed any-
where.

Gasoline for 60 to 80 miles.

Lubricating oil for 150 miles.

Controlled by one small lever.

SPEED—Any desired.

PRICE, \$200.

THE E. R. THOMAS MOTOR CO., Inc., 106 Broadway, BUFFALO, N. Y.

**STEEL
BALLS**

The Best in
the World.

EXCELSIOR MACHINE CO., BUFFALO, N. Y.

The Week's Patents.

679,765. Support for Bicycles. George W. Manson, New York, N. Y. Filed Nov. 17, 1900. Serial No. 36,847. (No model.)

Claim.—1. A supporting rest for bicycles comprising two pairs of diverging tubular arms, a collar fixed to the inner ends of the respective pairs of arms, horizontal flat shoe bars formed with downturned ends secured to the outer ends of the diverging arms, and tie rods connecting the shoe bars.

679,794. Bicycle Support. John E. Sweet, Syracuse, N. Y. Filed Nov. 20, 1897. Serial No. 659,218. (No model.)

Claim.—1. A cycle rack comprising a bracket, a wheel arm having upwardly extending arms and provided at one end with oppositely extending pintels adapted to engage said bracket.

679,825. Alarm Apparatus for Bicycles, etc. Johan Blomster and Carl J. E. Gustafsson, Boras, Sweden; said Blomster assignor to said Gustafsson. Filed April 20, 1901. Serial No. 56,700. (No model.)

Claim.—In an apparatus of the character described, the combination with a cylinder, a wheel independently journaled below the same, a piston in the cylinder, a rod having a suitable connection with said wheel, at one end, its opposite angular armed end passing through one side of the cylinder, and connected to both sides of the said piston, and the separate chambers formed at the top portion of the cylinder, of the whistles mounted on the upper surface of said cylinder, and the dampers coating with said whistles, substantially as and for the purpose specified.

679,913. Clip for Bicycle Saddles. Charles R. Reid, Springfield, Ohio, assignor to the Kirkpatrick Saddle Company, same place. Filed May 11, 1900. Serial No. 16,311. (No model.)

Claim.—1. In a clip for bicycle saddles, the combination with the seat post arm and frame supports of the saddle, of adjustable tipping bars segmental on one edge and straight on the opposite edge, the straight edge to contact with the straight portions of said frame supports, a clamping device engaging said bars and supports and means to operate said clamp and to tighten the same on said seat post arm, substantially as specified.

679,982. Friction Clutch for Bicycles. Alexander P. Morrow, Elmira, N. Y., assignor of one-half to H. H. Fulton, same place. Filed Feb. 6, 1899. Serial No. 704,656. (No model.)

Claim.—1. The friction clutch herein described, comprising a rotative element formed with an integral annular boss or bead, a clutch ring loosely mounted on the rotative element having a flaring inclined interior to engage the bead, and formed with a longitudinal annular flange having face cams on its end, a wheel loosely mounted on the rotative element, and having face cams to engage the cams on the clutch ring, and push it in contact with the head, whereby the rotative element, the clutch ring and the wheel are locked together, and retaining means for preventing lateral displacement of the sprocket wheel.

680,048. Bicycle. Emil Koch, Gross-Lichterfelde, Germany. Filed Dec. 8, 1900. Serial No. 39,157. (No model.)

Claim.—In a bicycle, a yielding connection for the front wheel combining the following elements, to wit: A member rigid with the steering head and having articulate connec-

tion with the main frame for permitting movement between the frame and the front wheel, springs for the said articulation connected between said frame and said steering head, and a connection between the main frame and steering head independent of said springs for guiding and limiting the extent of said movement, substantially as set forth.

DESIGNS.

34,902. Rear Frame for Motor Cycles. Vincent H. Bendix, New York, N. Y. Filed July 6, 1901. Serial No. 67,371. Term of patent seven years.

Claim.—The design for a rear frame of a motor cycle, as herein shown and described.

34,903. Bicycle Frame. Jonas L. Knoll, Lebanon, Penn. Filed July 5, 1901. Serial No. 67,248. Term of patent fourteen years.

Claim.—The design for a bicycle frame as herein shown and described.

Shining by Comparison.

Laggard as this country is in adopting the metric system, it is at least a long way ahead of some others—notably Great Britain—inasmuch as the United States monetary system has the decimal for its base.

"That British trade abroad is severely handicapped by our intricate system of weights and measures is generally admitted," says Wheeling. "Consuls are constantly impressing upon us the necessity of British manufacturers, in catalogues, etc., quoting in metric weights and measures. To do this involves trouble and expense, but we must do it if we do not wish our rivals to hold a strong advantage.

"The extent to which the simple metric system has secured the world's trade is hardly realized by the insularly proud Briton. S. Jackson, M. A., lecturer of the Decimal Association, recently stated that there are now 445,000,000 people using the metric system, and we are the only country, together with India, which has not a decimal coinage!

"Some day we may get a Government which realizes where the commercial interests of the Empire lie, and then look forward to a common sense reform that will remove a tremendous handicap from British trade."

Multicycles Proved Money-Wasters.

When one recalls the place once occupied by multicycles, the comparison with their present neglected state is a harrowing one. Motor pacing machines have driven them out of the pacing game, and they are scarcely ever seen on the road. A considerable number of them are still in existence, but they can be bought for the proverbial song, even when new or almost new. One concern offered to close out its stock at a very low figure, regardless of former list price or actual factory cost. The last item was always considerable, for, unless they were put through in large quantities, they were very expensive to build.

There is an increasing disposition to place the motor on motor bicycles in front of the crank hanger and below the main frame tube. That is especially true of the later productions in this line.

The Week's Exports.

New Zealand and Australia divided honors last week in the purchase of American cycle stuff. England was third on the list, while Denmark, Japan, the East Indies, Africa and the Philippines took shipments of snug proportions. The record in detail for the week which closed August 13 follows:

Amsterdam—12 cases bicycles and parts, \$209.

Arnheim—3 cases bicycles, \$94.

Bremen—1 case bicycles, \$50.

Berlin—2 cases bicycles, \$100.

British East Indies—41 cases bicycles, \$2,268.

British Possessions in Africa—28 cases bicycles and parts, \$1,970.

British Australia—179 cases bicycle material, \$7,853.

British Guiana—4 cases bicycle material, \$120.

British West Indies—29 cases bicycle material, \$942.

Christiania—2 cases bicycles and parts, \$100.

Copenhagen—95 cases bicycles and parts, \$2,440.

China—6 cases bicycles and material, \$344.

Dutch East Indies—9 cases bicycles, \$416.

Glasgow—3 cases bicycles, \$160.

Hong Kong—3 cases bicycles, \$28.

Hamburg—9 cases bicycles, \$303; 16 cases bicycle material, \$495.

Havre—14 cases bicycles, \$320; 17 cases bicycle material, \$665.

Helsingfors—2 cases bicycles, \$100.

Hayti—2 cases bicycles and material, \$23.

Japan—7 cases bicycles and material, \$2,332.

London—264 cases bicycles, \$3,500; 15 cases bicycle material, \$701.

Liverpool—11 cases bicycles, \$492; 62 cases bicycle material, \$2,681.

New-Zealand—187 cases bicycle material, \$9,093.

Philippines—25 cases bicycles and material, \$1,125.

Rotterdam—29 cases bicycles and parts, \$1,007.

United States of Colombia—1 case bicycles, \$45.

To Soften Steel.

It sometimes happens that a repairman wants to use an old hardened punch or some other piece of steel in a great big hurry and can't wait for it to anneal in lime.

"In order to get it in a workable condition quickly give it a water anneal; but here's the way to do the trick," says a worker in metals: "Simply heat the piece to a dull cherry red; then have a piece of soft pine handy, and as it cools try the heat by charring the wood. When the heat gets so slow that the piece will not char the wood plunge it quickly into oil. You will be surprised to see how soft it will become.

Pedaled on the Sea.

It is said that a voyage from Trieste to Pola, a distance of about eighty miles, has been made on a sea velocipede. The vessel is propelled by paddles worked by pedals, and is built in airtight compartments, so as to be unsinkable. A good speed is said to have been attained.

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., Thursday, August 22, 1901.

No. 21

PHILADELPHIA SPIDERS WEAVE A WEB IN NEW YORK

Three Bicycling World "Flies" Walk Into the Parlor and Uncover a Full Complement of Old Bicycles and New Lies—Fraud as Operated in the Term "Storage"—The Price-Cutters Finally Discover a "Detective," and a Howl Goes up.

If any one who knows anything about bicycles desires to spend an interesting half hour he has but to visit the store opened last week in Cortlandt Street, this city, by the Manhattan Storage Company, of Philadelphia.

He will not find that name, or, indeed, any other name, prominently displayed, but he will find the windows and door front fairly plastered with cheap cloth and paper signs heralding some startling prices on bicycles and bicycle accessories—signs of a temporary character suggesting that the lease of the store has not long to run.

THEIR SECOND ATTEMPT.

It is the second establishment of the sort that these Philadelphians have opened in this city. The first, which is operated under another name, is near the General Post-office and Brooklyn Bridge, and directly in the line of travel of Brooklynites; the other is near the ferry, and on the street most frequented by New-Jersey commuters. The inference is unavoidable that the Quaker "invaders" are "laying for" the suburbanites, and that they fancy or have been informed that their peculiar ammunition and methods are better calculated to find soft spots in those who merely work in New-York rather than those who live here.

Be that as it may, the Philadelphians are taking long chances and playing a game that in its reckless regard for truth and the reputations of others is not unlikely to cause work for the police. Their advertisements are as remarkable as their goods and their salesmanship.

One of their first advertisements heralded

"Great Bicycle Sacrifice," and informed the public that "we have now fully one-half of the wheels and tires of the American Flyer Cycle Company, of Providence, R. I., ready for sale. These famous wheels, known as the strongest and swiftest in the world, go for less than one-half manufacturing cost. With other small lots seized and sold for storage, they offer choice of the highest grades, both road and racing wheels. Ten thousand pairs of tires seized for advances and unpaid storage and \$5,000 worth of sundries are included in this great sacrifice sale."

This was followed by one announcing that the "bicycle world was ablaze" because of the stupendous bargains in 1901 bicycles, tires, etc., that were being offered.

"Having to sell the entire \$50,000 stock, the contents of the great warehouse of the Manhattan Storage Company," this advertisement continued, "all we want is the storage charges, and expenses. The public gains what the dealers who stored the goods have lost."

FACTS VERSUS FICTION.

To the ignorant and the unknowing, the name of the concern makes these statements seem plausible. To the cycle trade, which knows that the Manhattan Storage Company, despite its title, is not only a Philadelphia institution, but that it has been buying goods and doing a cut price bicycle business for several years, the statements were at once amusing and aggravating.

Accordingly, two Bicycling World men set themselves to discover the methods that prevailed in the establishment. One played the part of an innocent and unknowing pur-

chaser; the other assumed to know something about bicycles.

As the "innocent" crossed the threshold he was welcomed by a portly salesman, whose face betrayed unmistakably that he belonged to that portion of the political party that does not include ham sandwiches in its diet. A sweep of the place disclosed no purchasers and several other salesmen of the ham eschewing race. The "innocent" asked to be shown the American Flyer bicycles as advertised.

"Here's an \$85 bicycle we can let you have for \$20," said the portly salesman, indicating one of a row of about as cheap and ill assorted bicycles as is possible to get together.

FRAUD WITHOUT BLUSHING.

The bicycle indicated bore a circular nameplate, a fancy "A" forming the centre of the circle.

"Is it an American Flyer?" inquired the innocent.

"It's the same as the Wolff-American," answered the salesman, without turning a hair. "We guarantee it for two years."

"Where is it manufactured?" asked the Bicycling World man as he bent over for a closer inspection of the nameplate, which was found to bear the name, "March-Davis Cycle Company, Chicago," which concern failed about a year ago.

"We don't like to say," said the salesman, "but," he continued, lowering his voice to a confidential strain, "I'll tell you that it is a Wolf-American, all right. You see, when the manufacturers send us the wheels for storage they ship them without names, and

when we have to sell them we don't like to hurt their reputations, so we mark them with other names. We marked this Wolff-American with an 'A' because we had to mark it with something. You know how it is?"

The bicycle in question was an antiquated March-Davis "Admiral," and looked no more like a Wolff-American than chalk looks like cheese, but the reporter, of course, did not remark the fact.

"Do the manufacturers store many bicycles with you?" he asked guilelessly, instead.

"Thousands of them. Come back here and I'll show you how we receive them," replied the salesman, leading the way to the rear of the store, where he pointed to a lot of perhaps twenty crates, marked "Manhattan Storage Company." The crates contained second hand wheels. The "innocent" was, however, interested only in new bicycles, and said so. Accordingly he was led back to the racks containing them.

CHAINLESS WITH A CHAIN.

"Here's a very fine \$100 chainless which we can let you have for \$20," said his conductor, touching a bicycle bearing the nameplate, "Howard Chainless." "The manufacturers do not make it any more. That's the only reason we can afford to sell it at such a price."

"Innocent" as was the reporter, he looked at the man in amazement, for, astounding though the statement may seem, the bicycle, despite its nameplate, was fitted with chain and sprockets.

"Why, that bicycle has a chain," he retorted. "I thought a chainless bicycle had none."

The man looked at the machine and showed symptoms of the "rattles."

"That's funny," he finally managed to say. "We must have put on the wrong name when we took it out of the warehouse. We store so many of them, you know, that sometimes we may make a mistake. It's a very fine bicycle, though."

"Then you don't sell bicycles regularly? You're in the storage business entirely?" put in the reporter, anxious to pin down the known falsehood.

WORTH SEVERAL MILLIONS.

"Yes, we're a big storage company, and only sell goods that are unclaimed. We are worth several millions of dollars."

He again called attention to the bicycle, adding that they "guaranteed it for two years."

"It looks all right," ventured the "innocent," but I don't think I want it. Since the makers are out of business, if anything broke or went wrong I couldn't get it fixed or replaced."

"Yes, you can," rejoined the salesman. "All those things are extra parts," indicating by an all encompassing sweep of the arm the lamps, bells, toe clips, etc., that filled the shelves and showcases. "We are responsible people. We guarantee it for two years, and any repair man can make any part you need."

The man was rapidly "losing his head," and was firing words into the air at random.

"But if you are not in the bicycle business, what good is your guarantee?"

This flabbergasted the man. He fairly squirmed.

"Well, I'll tell you what I'll do," he finally spluttered, in a semi-confidential strain. "You buy the bicycle and I'll give you the name of the manufacturer. I'll give you his guarantee for one year, and I'll give you ours for one year. I'll put them in black and white. I'll"—

Whatever else he intended to promise was cut short by the "innocent's" decision that he did not want the bicycle, and his request to be shown something else. Walking down the aisle, his eye fell on one bearing as a nameplate the shield of the United States.

HAD THE UNITED STATES SHIELD.

"That's a good looking one," he remarked, stopping in front of it, and stooping to see that it was marked "Republic."

This encouragement was sufficient for the salesman. He lifted the bicycle, stand and all, into the centre of the aisle. The "lamb" viewed it admiringly, while the tempter ambled on:

"That's the finest bicycle in the place," he spouted. "It's an \$85 machine, but we'll sell it for \$20. I'll guarantee that you can't buy it at wholesale for less than \$65."

The "lamb" drank in this beautiful lie, but did not remark it. Instead, he found fault with the fork crown, on which the nickel was badly worn.

"That's nothing," was the response to the criticism. "All it needs is a little rubbing."

"I like the looks of the bicycle. What tires are on it?"

FAMOUS "VICTORY" TIRES.

"The Victory."

"The Victory?" repeated the "innocent," inquiringly.

"Yes, you've heard of it. We sell thousands of them. But if you don't like it we'll give you the Arch or any tire in the house." As he spoke, he pointed to the rear of the store, which was well filled with tires.

The Bicycling World man stooped to get a closer view of the "famous tire," and incidentally to find the imprint. While in this stooping posture, his arm was touched and a strange voice, with a Polish accent, asked excitedly:

"Are you one of dem men from dat wheeling paper?"

HE FEARED TROUBLE.

"Why? Are you afraid of anything?" he asked mildly of the dark skinned Isadore who had so suddenly interrupted his inspection of the tires, and who appeared to be the manager.

"What for you ask so many questions?" he asked in return.

"You don't suppose I'll buy a bicycle until I know all about it, do you?"

"Well, you ask too many questions," and then, growing more excited, "Isadore" continued: "We won't sell you no bicycle. We

won't sell you none if you put your money down for it."

"All right then, I'll get out. I always thought people who wanted to buy bicycles had the right to ask questions," retorted the reporter, moving toward the door.

The portly salesman, who had been trapped, said not a word. He seemed stupefied, and although several of his fellow salesmen flocked to the scene of "Isadore's" excitement, "Isy" himself did all the talking; the others were mute.

As the "innocent" slowly—very slowly—moved toward the door, he looked scrutinizingly up and down and around at the bicycles, at the shelves, at the show cases, and at his colleague, who, with a weather eye open for trouble, was more or less absorbed "in buying a 21-inch diamond frame for his wife."

THE "LAMB'S" DEPARTURE.

"Isadore ambled close behind the departing "lamb." The sauntering pace and apparent searching examination of his stock did not add to his peace of mind. He fidgeted uncomfortably, and was plainly agitated. Finally, when near the door, he could stand the tantalizing no longer, and disclosed his fears by blurting out:

"If you're a detective, go where you belong. We don't want you 'round here."

The "lamb" stopped at the threshold, gave "Isadore" a lamblike smile and glance and then stood near the doorway, and conducted a detectivelike examination of the show window. "Isadore" hurried back to tipster, who had discovered the Bicycling World man, while the other unrecognized but more knowing "innocent," who remained inside, overheard the narration of his colleague's connection with "dat wheeling paper."

When this "knowing lamb" entered the store he asked to see a Morgan & Wright tire displayed in the window and tagged "48 cents."

"Oh! that's the price of the inner tube only," replied the salesman, who took him in tow.

A TWO YEARS' GUARANTEE.

"Bicycles? Certainly. Here's one made by the March-Davis Company, of Chicago. It's one of the best in the world. We give a two years' guarantee with it. The price? Twenty dollars, said it never sold before for less than \$50."

"That fork crown does not appear very strong," suggested the reporter.

"There's nothing stronger on the market. It is made of the best steel, worked by hand. But if you don't like it, here's another bicycle"—indicating a League, made by the League Cycle Company, Milwaukee, which gave up the ghost two years ago—"worth having. We sold eight of them yesterday, and this is the only one we have left. We could have sold this, but it was in the window and we didn't want to break the display. It is so popular that people come in and ask for it."

"Are the makers still in business in case extra parts should be wanted?"

"Oh, yes. Their guarantee goes with the

wheel and can supply anything that you may want."

"What tires can I have?"

"Any tire except the Hartford."

"Palmer's?"

"I don't think we have any in stock, but we have the Arch; it's just as good, and we guarantee it."

"How long have the wheels been in storage?"

"I—I really can't say; in fact, I don't know but it must have been last year."

"Then they can't be 1901 goods?"

"I don't know—but here is a fine wheel for \$18," said the salesman when the scent grew too warm and it seemed wise to change the subject.

The "fine wheel" proved to be nameplated "20th Century."

OBTAINING EXTRA PARTS.

The salesman volunteered that they could furnish extra parts for this machine, by inference admitting that his previous statements were untrue. He was such a guileless and unsuspecting chap that it seemed cruel to "bait" him.

"Did the manufacturer store the parts with you, too?" the reporter asked, despite his feelings.

"Yes; he stored some parts with us, but he is still in business and guarantees the wheel."

It was at about this time that "Isadore" discovered the other *Bicycling World* "innocent" and began to grow excited. As he sauntered past "Isadore" was overheard to say something about detectives.

"What's the trouble? Are there detectives around here?" asked the undiscovered one who remained.

The salesman attending him did not answer to distract attention, but talked volubly about the merits of the \$18 bicycle and the guarantee that went with it.

"Isadore," having left "his detective" at the door, returned and was quickly surrounded by the anxious salesmen, the tipster having also come from the rear of the store. The latter could be heard describing the "innocent" as "the editor of the *Bicycling World*"; the salesman who had the other and unrecognized reporter in hand began to lose interest in his customer and evinced a desire to join the group. His anxiety was so great that he grew even more reckless in his statements.

FRAMES CUT DOWN.

When the "customer" asked to see a diamond frame for his wife, the clerk swept the row of wheels with a wave of his hand and responded:

"Any of them will fit her."

"No, they won't; she'll have to have a 21-inch frame."

"I don't think we have one, but we'll cut down any one you buy to fit her."

"How can you do it? I thought you were in the storage business. Do you run a bicycle shop, too?"

Even this broad suggestion had no effect on the fellow. He had lost all interest in

the sale and was actually nervous in his desire to join the group and learn what was going on.

"No, we don't run a shop, but we can have the work done easily enough."

The man's anxiety was so deep that it seemed a relief to him when the *Bicycling World* man finally stated that he "would bring his wife around." The salesman did not even see his "customer" to the door. He lost not a moment in joining the still agitated "Isadore" and his listeners.

MORE BRAZEN EFFRONTERY.

Despite his experience, however, "Isadore" or his principals lost none of their brazen effrontery. The very next day they published this ad. in the *New York dailies*:

"Bicycle Dealers Go Wild.—The low prices at which we are selling wheels, tires and sundries have brought us scores of protests from the old fog, high-priced dealers. They claim we are ruining their trade, killing the prices of bicycles forever. We cannot help that; we have \$50,000 worth of goods to unload, and must make sacrifices to do so at once. The wheels, tandems, juveniles, tires and sundries we are so mercilessly slaughtering cost us one-fourth what other dealers paid for theirs. Seized and sold for storage and advances, all we want is enough to cover costs. New high grade 1901 wheels, some with coaster brakes, for less than one-half what they cost the maker."

Determined to ascertain if the concern's methods, like their ads, were unaltered, a third *Bicycling World* man visited the store. He asked for a Hartford tire.

"I can give you a Hartford, but you are throwing away money to buy one. Here's one"—an Arch—"that's just as good, and we sell it for a dollar less and guarantee it."

"Well, I'll tell you," said the "customer," "I've got an old wheel and I don't know whether to fix it up or buy a new one—do you do any trading?"

"We have so many second wheels that we couldn't allow you much for yours. Why not get a new one? Let me show you one."

He then led the way to a shoddy-looking maroon-colored March-Davis "Admiral" and, pointing to it, said enticingly:

"There's one for \$20. It's the same as the Wolff-American."

"Did the Wolff-American people make it?"

"I'd rather not say. We don't like to give any manufacturer away, so we put on the nameplate ourselves. The wheel's all right, though, and a big bargain at the price."

The "customer" decided to "think it over" and "come in later."

"Ask for Mr. ——— when you call," was the parting injunction.

If he is ever asked for again the call probably will be in the nature of a legal summons.

One Smith Retires.

C. J. Smith & Co. is the new title under which the business of the C. J. & F. E. Smith Co., of St. Paul, Minn., will hereafter be conducted. The interest of F. E. Smith has been purchased by C. J. Smith.

DOLLAR FOR DOLLAR—NIT!

Hooley's Promise and Hooley's Performance Don't Agree—Creditors Get Little.

Twenty shillings in the pound, or dollar for dollar, was the fine-sounding promise made by that prince of swindlers, Ernest Terah Hooley, when he went into bankruptcy.

That was in June, 1898, and in all the time that has elapsed since then the waiting creditors have been paid two shillings, or 10 per cent of their claims. It is stated that they are shortly to be again rewarded for their patience. A second dividend, estimated to amount to nearly or quite two shillings more, or 20 per cent in all, is to be paid from funds now in the hands of the trustee. Even when this has been done, a small balance will remain; and it is thought that there may be enough of it left to warrant the payment of a third dividend. But if this is done, which is doubtful, it will be so small that it will not be easy to see it.

Now that the end is in sight, it is interesting to recall the facts and give the important figures in the case. The total sum realized by the trustee was £739,540, but of this no less than £600,845 had to be paid in redemption of securities, the completion of certain works, payment of wages, etc.

Claims were lodged for something like £1,500,000, but of these £912,950 were rejected, and the amount on which the first dividend was paid was £537,950. Several claims have since been withdrawn, but others have taken their place, and the amount on which the next dividend will be paid is practically the same.

The trustee's remuneration and expenses have amounted to over £8,000, and the creditors' committee kindly granted the debtor a salary of £20 a week until he began to let his tongue wag in the true Hooley style about the magnificent income he was enjoying from other sources.

Was Used Years Ago.

That there is nothing new under the sun is demonstrated anew by the taking out in this country of a patent on an English tire with a peculiar method of fastening to the rim. The latter is nothing more or less than the application of the well-known glove-fastening principle to a pneumatic tire.

The stud or button used is more correctly described as a vacuum stud, and the simplicity and ease of attachment and detachment are said to be marvellous. The studs are fixed at intervals of about two and a half inches along each edge of the cover, which is therefore perfectly flexible. The neck of the button is hollow, and when the inner tube is inflated it blows into these hollow parts, and thus makes inner tube and outer cover practically one, so that slipping of the cover is impossible.

Almost identically the same fastening was used for one of the early pneumatic tires marketed in this country nearly a decade ago.

ANOTHER WORLD'S RECORD BROKEN!



. . . ON . . .

"The Little Blue Wheel."

WILLIE FENN, "THE BOY WONDER," AND HIS NATIONAL BICYCLE,
MAKE A COMBINATION HARD TO BEAT.

June 30th, at Vailsburg, N. J., Fenn won the 5-mile handicap from the 100-yard mark in 10 min., 29 2-5 sec. Although fast, the time could not stand as a record, as he did not ride from scratch.

July 4th, at the same place, he rode from scratch, making the 5 miles in 10 min., 33 2-5 sec., world's unpaced competition record, the best previous time being 10 min., 45 sec.

GOOD RIDERS RIDE RECORD BREAKERS.

Aside from its merits as a
pleasure promotor and an energy saver
much is to be said of

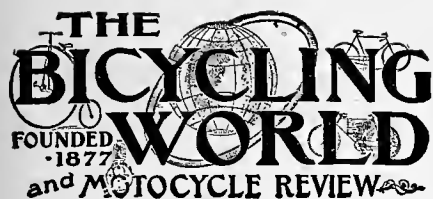
THE MORROW AS A LIFE PRESERVER

Whether on the level or coasting downhill, a
confused pedestrian, a wagon, a railway
track, a ditch or other obstacle or a
sharp turn in the road requires
quick action and a short stop.

In such contingencies, back pedaling on a
fixed gear is of small purpose. With a
Morrow Coaster Brake it means in-
stant stoppage and safety.

It is by pointing out such benefits as these that dealers can attract profitable
business via the Morrow route.

ECLIPSE MANUFACTURING CO., ELMIRA, N. Y.



In which is Incorporated
the "The Wheel" and the "American Cyclist."

Published Every Thursday

By

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Entered as second-class matter at the New York, N. Y., Post Office, September, 1900.

General Agents: The American News Co., New York City and its branches.

Change of advertisements is not guaranteed unless copy therefor is in hand on SATURDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should

Address us at P. O. Box 649.

NEW YORK, AUGUST 22, 1901.

The Fraud Must Cease!

Whatever policy the Manhattan Storage Co. may employ in Philadelphia, its "invasion" of New York has been marked by the most shameless disregard of the truth that has ever come to our notice. The man who can lie "as fast as a horse can trot" is put to blush by these "gents" from the Quaker City, one of whom, at least, had five years of personal experience in public storage that should cause him to be more cautious.

The falsehoods begin with the advertisements that attract people to their stores; they greet him the moment he enters the establishments, and follow him until he departs. The experiences of three *Bicycling World* men detailed in another column is sufficient to prove this assertion. The story is not overdrawn; if anything, it has lost in the telling. The Philadelphians' wholesome fear of "detectives" attests that they are well aware that their methods bring them within the pale of the law.

What they apparently do not know is that

within the last three years a law was placed on the statute books of New York making such fraudulent advertising as theirs a crime. They know full well that they commit fraud when they assert in print that the bicycles they are selling are 1901 models; they know they add to the fraud when they assert that the goods were stored with them by dealers—or manufacturers—and that they were seized and are being sold for storage charges; they know they are committing fraud when they offer cheap March-Davis "Admirals" as "Wolff-Americans," and again when they offer the guarantees of manufacturers who are no longer in existence. In fact, their selling methods constitute a trail of fraud.

We have placed our evidence at the disposal of the manufacturers of the Wolff-American bicycle for use in seeking legal redress should they elect to seek it, and we now warn the Manhattan "Storage" Co., its principals and agents, that they must either clear out of New York or cease their policy of fraud. If they do neither, we shall place our well-corroborated evidence in the hands of the authorities and force legal action.

We are deeply in earnest and prepared to meet any bluffs made by the Philadelphia aggregation. We do not mean that the public shall be longer imposed on or that the cycle trade shall suffer the odium and effects of such imposition. It has suffered enough as it is.

What of Next Year?

There are nowadays no such sudden and sweeping changes of constructional fashions as marked the trade in the early and late nineties.

Then the question that presented itself to each manufacturer was not "Shall I make changes?" but rather "What changes shall I make?"

That he must make changes, and frequently radical ones, was a foregone conclusion. The public demanded them, the trade met the demand considerably more than half way. Each member of it sought to be a leader, to strike out in a different direction. The important thing, however, was to catch the popular fancy.

Much water has run under the bridge since then, however, and the perplexity of the maker is now of a very different nature. He is face to face with the question whether he shall stand fast to present patterns or seek to change them.

This is the time of the year when such questions must be answered. They have been asked quite enough; so far they have

received scant reply, have had no such response as would throw much light on the subject.

But now the doubts must be resolved. Next season is near at hand in the designing room, even though it is far off in other respects.

Speaking generally, it is pretty safe to say that there will be little change of a radical nature in the 1902 machines. Present-day standards are too firmly established to be overthrown or even disturbed. They stand for years of experiment and change, and as they can scarcely be bettered the regulation bicycle of the coming season could readily be described in the light of present knowledge.

But in details there is more room for individuality, and it bids fair to be taken advantage of.

Such things as weights, sizes of tubing, shape of frames, design of fork crowns, handle bars, rear forks, sprocket wheels and like minor features are likely to come in for a going over.

In the construction of these parts there is likely to be afforded an inkling of their make. They will aid the nameplate in declaring the origin of the cycle.

As Wide Apart as the Poles.

That two peoples, closely allied racially and in other respects, should start from the same point and yet arrive at totally different conclusions is more than remarkable; it is extraordinary.

This is exactly what has been done by the British and the American peoples in the matter of the coaster-brake. At the beginning the device was almost identical in the two countries; to-day, after two years' use, it is entirely different.

The British device of to-day is not a coaster-brake. It is a coaster, used in conjunction with a back-peddalling brake of some kind and usually a hand brake in addition.

There are exceptions to this as to every rule. Coaster-brakes of American manufacture are used to a limited extent, and a few of insular origin are dragging out a precarious existence. But the latter are little better than aliens, although to the manor born, while the former scores for entirely different reasons.

British trade and public are a unit in asserting that a hub-contained back-peddalling brake is indefensible; danger, friction and non-reliability inevitably result from its use.

This belief appears to be an honest, if mistaken one. It is based on experience,

presumably a sorry one. But why should such a different verdict be reached on this side of the water?

Now, the great majority of American riders who use coaster brakes dispense with hand brakes of every kind. They depend almost entirely upon the pedal operated brake contained in the rear hub, and, if it should fail, would be almost helpless.

But does the coaster brake ever cease to work? Certainly all data available says "No!" most emphatically. In an experience extending over three seasons' use of coaster brakes—on both single and tandem—we have never had the slightest trouble, and, although somewhat sceptical at first, have come to rely absolutely upon the device, for braking as well as for coasting.

As this is the experience of riders everywhere in this country, it becomes plain that (1) British coaster brakes are defective in construction or unreliable in working; or (2) British riders are unreasonably timid, and their fears are but chimeras.

It is not to be denied that a rider is safer if he has a hand brake fitted to his machine in addition to a coaster brake; but its necessity is a very different matter.

It is arguing along the same lines to say that every rider should have a brake, instead of relying entirely on back pedalling, on a fixed gear machine. This is true, but it is equally true that scarcely one rider out of one hundred takes this precaution.

Chains used to break with alarming frequency, and some accidents happened in consequence. But such a thing rarely occurs nowadays, and no one would think of fitting a brake merely to guard against such a contingency. Riders take their chances with chains as with other vulnerable parts of the bicycle.

Why it should be different with the coaster brake, especially in view of the demonstrated reliability of the latter, it would take a Briton to explain.

Boiled down, it all amounts to this: The timid or cautious rider will carry an extra brake. The average rider will not.

Has Form Deteriorated?

Are there not many more poor riders to be seen nowadays than in the golden age of a few years ago? A little observation of the wheelmen encountered almost any day would appear to lend support to this theory.

Perhaps it is because such a large proportion of riders now use the bicycle for purely business purposes—that is, as a means of transportation. Many of them pay no atten-

tion whatever to their dress or their general appearance. They carry lunch baskets, packages of all kinds, even implements of trade, and they ride along bent solely on getting to their destination in good time.

It is among this class of riders that many sights are seen. Usually in such cases the machines and the riders do not fit. The saddle is too low or too far back or forward, and the rider, in addition to being anything but an edifying spectacle, is unable to get the best results out of the machine. It is the same way with the handle bars. They are in all kinds of positions but the one they ought to be.

Many of the riders referred to appear to be working hard. There is none of the easy, graceful carriage the good rider takes such delight in. The pedalling is not clean, the position of the body is open to criticism, and, in general, the rider appears to be making work out of what should be pleasure.

When the Deluge Ceases.

At the risk of perpetrating an Irishism, we will say that it is a good thing that the selling season does not extend throughout the summer and autumn.

If it did, judging by the experience up to date, it would have been an even more disastrous one than it is writ down now.

There was in June and July a slight let-up in the almost ceaseless rain that marked the major part of the spring, and some business was done in consequence. With the present month, however, the heavens have opened again, and had there been any great expectations of business formed they would by this time have been ruthlessly shattered.

The trade does build a little, however, on getting a modicum of trade during September and October. If Jupiter Pluvius will only stay his hand just a little then, he will be forgiven for doing his worst during the balance of this month.

And what a worst it has been! Not only last year's arrears of rain, but several more, past or future, have been made up by this time surely.

Right and Wrong.

Next to getting an idea into the "think tank" of the average Briton, about the hardest thing is to dispel a long-entertained and fondly cherished prejudice. Having discovered that wood rims are faster on the track, the belief that the same thing is true of the road appears to be gaining ground across the water. Says Cycling:

"A well-known road speed man with whom

we discussed the matter was emphatic in his belief that wood rims possessed more life for speed work on the road, but the difficulty was in fitting good detachable tires to them. Single-tube tires are very fast, but a puncture generally puts one out of court in these fast times. If a light metal lining were fitted on wood rims, we do not see why detachable tires could not be fitted for road work."

Fancy suggesting that wood rims could be fitted with a metal "lining"! Why, the thing was done almost a decade ago, and so satisfactory are wood rims—even for detachable tires—without it that it is now considered unnecessary to have anything of the kind.

The time is almost at hand when the motor bicycle demonstrator will walk abroad in the land, expatiating at length on the manifold excellencies of this latest form of flying on terra firma and initiating novices into the mysteries of the art of managing such machines. He will take the place of the bicycle instructor, so well known only a few years ago, but now practically extinct. Yet he will be more than this useful adjunct to the business ever was. More knowledge and greater skill will be required from him than was ever asked of his predecessor. He must be salesman as well as instructor, and for a while at least his commission will be a roving one, frequently taking him far afield. May he come soon, and prosper and grow fat!

These are the days when riders who take their machines to the seashore begin to notice ominous-looking spots on the nickelled parts. The salt-laden air, especially during the dog days, is about the worst enemy nickel plating can encounter, and it rarely emerges from the unequal contest without being worsted, no matter how good it may be. Constant attention will do something toward retarding the ravages, but no rider can feel safe unless he applies a coating of some rust-preventing preparation to the vulnerable parts.

Which is the harder on pneumatic tires, wet or dry weather? This question was frequently asked in the days of auld lang syne, and answered in both ways. The truth of the matter is that a tire punctures more easily when it is wet, as witness the cute repairman who wets his knife when cutting rubber. But loose stones or similar puncture breeders are much more plentiful in dry weather—a state of affairs that comes pretty near to evening things up.

FAUBER'S FUTURE

Big Chicago Plant Goes to Elgin—Name is Changed.

For some little time rumors have been prevalent in the trade to the effect that W. H. Fauber, Chicago, contemplated removing to Elgin, Ill. Most of these reports had their origin in Elgin, which city has been very anxious to secure the big parts-making concern as a part of its municipal life.

That these efforts have been crowned with success is evident from a statement given out by Mr. Fauber. This sets the matter completely at rest. It also hints at future extensions of the business and its incorporation and change of name.

"We are about to incorporate our business," writes Mr. Fauber, "which will hereafter be known as the Fauber Mfg. Co. We have completed arrangements whereby we secure a large manufacturing plant at Elgin, to which point we have now begun moving.

"The new company will continue to manufacture hangers and specialties the same as heretofore, and in addition will take up a few other lines. In time we expect to manufacture automobiles, but we are not prepared to make public any statement regarding this at the present time.

"We hope to be running in our new location between the 10th and 15th of September."

Dunlop Declares War.

A tire war is a possibility in the British trade next season. The Dunlop Co. has, according to Wheeling, taken the first step by preparing a new form of contract binding all users of its tires and those of its licensed companies to buy them to the complete exclusion of all other makes. Furthermore, 80 per cent of their dealings must be in Dunlops, Warwicks, Scotts and Clippers, the latter being three friendly licensees. Rebates ranging from 37½ cents to \$1 per pair will be given purchasers of these tires. The blow is thus aimed at unfriendly licensees as well as outside concerns. Retaliatory measures may be looked for.

Co-operation was a Failure.

The Co-operative Cycle and Motor Co., of St. Catherine's, Ont., has not proved to be a success. An order was granted at Toronto last week winding up the concern upon the application of the Dunlop Tire Co., of Toronto, creditor for \$5,000. The total liabilities are estimated at \$50,000. Justice Lount subsequently appointed the National Trust Co. of Toronto liquidator. The company made an assignment to the Trusts and Guarantee Co. recently, but this is now void.

George A. Banker, of Banker Bros., Pittsburgh, made a flying trip to New York this week. He reports business in the motor line as being remarkably good.

After Thieves and Tack-Throwers.

The Minneapolis Cycle Trade Association still maintains its well earned reputation for progressiveness and activity. Its latest action is to move against the police of the Flour City for alleged lukewarmness in getting after lawbreakers who afflict cyclists.

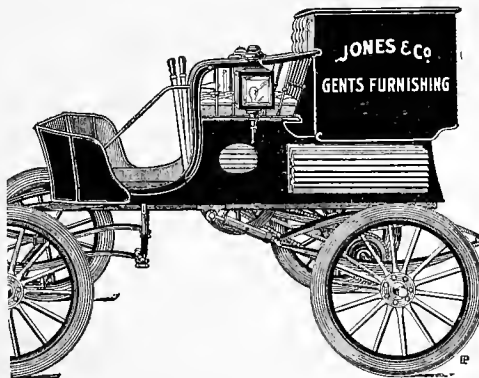
The association claims that the authorities are not active enough in arresting persons who throw tacks on the cycle paths. There has been more of this work done during the present year than at any time since cycle paths were built.

For the purpose of bringing some of these people to justice, the association offers a reward of \$25 for the arrest and conviction of any one performing such an act of vandalism.

The dealers realize that there has been an unusually large number of wheels stolen during the present year, and this matter was also discussed at a meeting held recently, and while no action was taken it is possible that rewards will also be offered for the arrest of bicycle thieves.

One of Dyke's Designs.

Undoubtedly there are many people in the cycle trade who are interested in automobiles. To such the catalogue of A. L. Dyke, Linmar Building, St. Louis, Mo., will prove more than ordinarily useful. It describes and illustrates the complete line of automomobile fittings carried by Mr. Dyke suitable for assembling automobiles of all kinds.



bile fittings carried by Mr. Dyke suitable for assembling automobiles of all kinds.

The illustration shows a vehicle made up from the No. 1 parts, which can be furnished to any one desiring to assemble a similar vehicle. Mr. Dyke supplies parts for all kinds of automobiles, from a small single-passenger vehicle to an eight-passenger wagonette. He started the automobile supply business three years ago, and has supplied parts to a great many builders.

Four Floors Flame Swept.

An early morning fire did some \$3,000 worth of damage on Monday to the building at 42 Vesey street, New York. Four floors—all except the ground floor—were occupied by William Roche, the manufacturer of dry batteries for motorcycles and other purposes. A large stock of these goods was badly injured. The origin of the fire is unknown.

WORCESTER'S WOES

Trust Company Forecloses Property and City Gets Tax Decision.

While not as much heard of as formerly, the affairs of the once famous Worcester Cycle Mfg. Co., of Worcester, Mass., are still being aired in the courts.

Last week an opinion was handed down by Judge Brown, of the United States Circuit Court for the District of Massachusetts, in favor of the plaintiff in the case of the Central Trust Co., of New York, versus the Worcester Cycle Mfg. Co., of Worcester. The case involves \$500,000.

The opinion states that the Central Trust Co. is entitled to a decree of foreclosure of its mortgage on the property of the cycle company, dated September 1, 1896. The mortgage in question was given the trust company to secure bonds to the value of \$500,000 issued by the cycle company.

T. Hovey Gage, of the firm of Hopkins, Smith & Hopkins, is assignee of the cycle company, and as representative of the creditors, opposed the petition of the trust company on the grounds that the bonds are not valid obligations of the Worcester Cycle Co.

Judge Brown also handed down a rescript granting a petition filed by City Solicitor Arthur P. Rugg praying that the receiver of the cycle company be directed to pay all sums due the city from the cycle company for taxes and water rates. The total of these two items amounts to \$1,500.

Judge Brown handed down the following rescript granting the city's petition:

"In the opinion of the court, the receiver should forthwith, in accordance with the prayer of the amended petition of the city of Worcester, pay out of the funds in his hands all sums due said city for taxes on both the real and personal estate of the Worcester Cycle Mfg. Co., together with interest at the statutory rate until the date of payment; as the lien upon the real estate was by the decree merely transferred to the proceeds of its sale, it is apparent that the lien should not be impaired or diminished."

Bent on Business.

Fred. Menke, partner of Ellis Menke, Frankfort, Germany, one of the largest factors of bicycle parts and accessories in Germany, will arrive here about the end of August for his usual purchasing tour. Mr. Menke, who is a large cash buyer, is especially looking out for novelties in the trade. His New-York address will be care of John Menke & Co., 15-17 Greene Street.

Eisenhuth is Ready?

A rumor is current in Middletown, Conn., that the Eisenhuth Horseless Vehicle Co. has about completed arrangements for the payment of the balance of the purchase price which was to have been paid before August 1. It is understood that Receiver Betts will allow the \$10,000 already paid if the balance is forthcoming.

RACING

Except for the long lead Kramer has gained, the championship race for points is in a very interesting condition. The Pierce flyer is riding in slightly better form than any of his rivals, but his present advantage has been obtained largely through the frequent absences of Taylor and the late date at which Lawson made his appearance. The slightest falling off in Kramer's form will inevitably result in his lead being cut down, and it will be a week or two yet before he has the championship safely landed. Behind Taylor and Lawson are three or four men who are riding almost equally as fast as them, and while they are not likely to get into the first rank themselves, they are liable to damage the chance of the three leaders and cause material changes in their positions. The table up to and including Monday night, August 19, follows:

Rider.	1st.	2d.	3d.	Points
Kramer, Frank.....	9	3	8	50
Taylor, Major.....	4	4	3	27
Lawson, Iver.....	4	2	2	22
Cooper, "Tom".....	1	2	6	14
Fenn, W. S.....	1	3	3	13
Fisher, John.....	2	1	4	14
Wilson, Lester.....	1	1	4	10
Collett, George.....	0	3	0	6
Freeman, H. B.....	0	1	4	6
Gascoyne, T. J.....	1	0	1	5
McFarland, F. A.....	0	1	3	5
Kimble, Owen.....	0	0	4	4
Hausman, E. C.....	0	0	1	1
Butler, "Tom".....	0	0	1	1
Newhouse, J. A.....	0	0	1	1

Of the three professional championship races run at Buffalo last week, two—the one-fourth mile and the ten mile—were captured by the new Western phenomenon, Lawson, while Kramer placed the other to his credit. The latter, however, was the coveted blue ribbon of the track, the one mile, and Kramer won it from Lawson after the latter had shut Taylor out of the final. The latter did not win one of the championships. The best he could do was to get second to Lawson in the ten mile in a fierce finish. The three men named are pretty well matched, Kramer getting most of the points owing to his greater steadiness. Lawson and Taylor are more erratic, the Salt Lake City rider being especially so. His bursts of speed are wonderful, but he uses poor headwork as a rule. The negro is a more difficult problem. He is riding as well, probably, as he ever did, but the other men had divined his tactics and meet him at his own game. A combination undoubtedly exists against him, in so far as each man would rather have any of his rivals win than Taylor. But unfair riding against him there is no evidence of.

On Wednesday at Buffalo the semi-finals of the mile championship were run, Lawson and Kimble scoring over Taylor in their heat. Kramer and Fisher were the qualifiers in the other heat. Heats of the mile 2.10 class and the half-mile handicap were also run. The grand final of the mile cham-

pionship came on Thursday, and Kramer caught Lawson napping, and had a winning lead before the latter woke up. Bowler, Newkirk, Jack Green and Maya were the placed men in the final of the mile 2.10 class, and Wilson, Taylor, Jack Green and Bowler occupied similar positions in the half-mile handicap final. Time, 56.15. Heats of the ten-mile championship were run on Friday, as were the heats of the mile handicap. A five-mile motor bicycle championship was also run, G. M. Holly, of Bradford, Pa., winning over W. D. Scherer, of Baltimore in 7.12. The windup came on Saturday, when all the remaining finals were run. The fight for the ten-mile championship was a magnificent one, the three leaders in the greater championship race, Kramer, Taylor and Lawson fighting it out on the last lap. Turning into the straight Kramer had a slight lead, followed by Taylor and Lawson on the outside. Lawson came at a terrific pace, and in a whirlwind finish gradually pulled ahead of Kramer and Taylor. A blanket would have covered the three as they crossed the tape, with Lawson leading by half a wheel. Taylor had the same advantage over Kramer. The two special prizes for leading at five miles and leading the greater number of laps were won by Fenn. Time, 26.17.

The mile handicap went to Newhouse, 50 yards; with Bowler, 70 yards, second; Kramer, scratch, third, and Fisher, 20 yards, fourth. Time, 1.59.1-5.

That the fates should ere long give the habitués of Madison Square Garden a real motor-paced race—one hotly contested right up to the end—is devoutly to be wished. In such an event it is a little doubtful whether the roof would remain on, so enthusiastic are the spectators. Previous races there have been marred by accidents, or, as last Monday, by unevenly matched competitors. In his 15-mile race against McFarland, Michael showed that he was in excellent form, and the lanky Californian was no match for him. He was lapped just as the Welshman pleased, and at the finish just a shade over 8 laps separated the men. McFarland made a game effort to hold the flying midget early in the race, but it was no use. Later motor troubles harassed him, but by a happy stroke Slusser, without waiting to ask Eck's permission, sent out Michael's second pacing machine to take McFarland along. This gave it the semblance of a race, and pleased the nearly 5,000 uproarious people present. Michael plainly retained all his old popularity. He was greeted with wild cheers, and his beautiful following of pace "cinched" his hold. From the first to the eighth mile he got inside indoor records, but thenceforth slowed down. Time, 26.21.2-5. The short races were more than usually interesting. Kramer emerged from the half-mile circuit championship a victor, further increasing his long lead. His competitor in the grand final was Collett, whom he disposed of without great trouble. Freeman and Fisher divided third money. A nasty spill put Taylor and Kimble

out of the final, while Lawson was too late in making one of his lightning sprints. Fenn, on his "little blue wheel," made a great fight for the mile handicap, but just missed it, getting third from scratch, the final being run in 1.56.2-5.

In a wearing race—wearing on both contestants—of one hour's duration Walthour decisively defeated Elkes at Manhattan Beach, New York, on August 17. The race clinched Walthour's claim to championship form and dimmed Elkes's fame. The latter appeared to be all right, and was regarded as first choice by many of the cognoscenti. But, as stated, it was a hard race, and both men were all out at the finish, only Elkes was a trifle worse than his competitor. The race was started unusually early, before the wind had gone down, and this accounts for the mediocre time made. As a race it was not much to look at; Elkes was plainly beaten after the 20th mile. But as a test of endurance it was much out of the ordinary. It was plug, plug, against the stiff breeze on the homestretch, until it almost seemed as if they must give up. At the finish Walthour led by 700 yards—the distance covered in the hour being 36 miles $2\frac{3}{4}$ laps. Hurley signalized his return from Buffalo by winning the half-mile open in good style, but in the 5-mile handicap Harry Welsing, starting from the same mark, beat him out. This race was a deserved win for Forrest, of Brooklyn, who jumped his field at 3 miles and rode in alone.

Although not absolutely new, the 10-mile motor-paced race in heats run at Charles River Park, Boston, on August 13, proved to be extremely popular. Michael, Champion and McEchern were the competitors. The Frenchman won the first heat, leading by a lap in the world's record time of 15.06.1-5. In the second and third heats, however, Michael turned the tables, getting them in 15.14.3-5 and 15.30, respectively. The real struggle came in the fourth mile of the second heat. Champion fought off his opponent, riding the mile in 1.26.4-5, but apparently killed himself, for shortly afterward he lost his pace and the heat. The third and final heat Michael won easily.

Once more the decision whether Stinson or Nelson is the better man is postponed. The two met at Providence on August 14 in a 25-mile motor-paced race. At 12 miles, with the men still together, Stinson's pacing machine went down, while the Cambridge lad crashed into it. Before he could get out of the mix-up and under way Nelson had three laps on him and was never headed. Indeed, he added $\frac{3}{4}$ of a lap more. Nelson won in 37.57.2-5, $3\frac{3}{4}$ laps ahead of Stinson. World's records were broken for 5 and 10 miles, and all the State records except for 1 mile were smashed. Time for 5 miles, 7.37.4-5; 10 miles, 14.54.4-5; 15 miles, 22.42.2-5; 20 miles, 30.15.4-5; 25 miles, 37.57.4-5.

Moran almost rode Champion off his feet in the first 10 miles of a 25-mile paced race at Charles River Park, Boston, on August 16. The Frenchman got the lead at the start, but was overhauled at 2 miles, almost immediately passed and left steadily behind from then until the 12th mile, when he was lapped. From this point Moran took things easy, only increasing his lead by another quarter lap, finishing in 39.26 2-5. The first 10 miles were ridden in 15.31 1-5. McEachern also ran, but was never in the race.

There was little for Michael to be proud of in his race with Caldwell at Brockton, Mass., on August 15. The distance was 20 miles, and Michael announced that he would go for all records from 1 mile on. For 13½ miles Caldwell hung on, and then in attempting to change to a spare machine Michael lost his pace. Failing to catch it again, he sat up and quit, and Caldwell finished in 32.07.

Why promoters will race unmatched men it is not easy to say. At Worcester, Mass., on August 14 Michael rode rings around Charles Porter, beating him by almost a mile. Yet so enjoyable was Michael's fine riding that the 5,000 spectators left the track well pleased. After the 9th mile it was a procession, Porter being "all out." The time, 23.30 2-5 for 15 miles, is record for the track.

Punctured tires had something to do with McEachern's defeat at the hands of Nelson at Springfield, Mass., on August 15, but the result would probably have been the same anyhow. Nelson lapped his opponent at 4 miles, and shortly afterward McEachern punctured, this virtually ending the race. Time, 33.12 4-5 for 20 miles.

Providence appears to have gone cycle-racing mad. Over 12,000 people are said to have witnessed the Nelson-Stinson race there last week.

At last Ross has won a race. At Manchester, N. H., on August 16 he defeated Harry Caldwell in a 5-mile exhibition, unpaced. Time, 9.15.

Detroit, Mich., is to have a six-lap board track built inside of the local baseball grounds. Paced races will be the feature.

Acme Plant's Record.

Already the work of dismantling the old Acme plant at Reading, Pa., has made considerable progress. In an interview published in a Reading paper Manager James C. Reber stated that the factory had turned out more than 170,000 bicycles since it was started, in 1897.

Opportunity in Santa Rosa.

Gustav Hegmann, a prominent dealer of Santa Rosa, Cal., died suddenly on August 11. The business, which was a very successful one, is for sale, Hegmann's widow desiring to dispose of it as soon as possible.

DES MOINES NOT DISMAYED

**Business is in a Flourishing Condition—
Some Gratifying Comparisons.**

Cycling has had so many hard knocks of late years, and there has been such an undeniable decline in sales and riding, that the really encouraging features of the business are apt to be overlooked.

Admitting very much of all that is said, it remains a fact that there are still millions of bicycles in actual use, many of them indispensable to their owners. The difference is that the bicycle is no longer a pleasure vehicle first and a business one afterward. The conditions have been reversed. Hundreds of thousands of pleasure riders have stopped, but almost if not quite equal numbers of business riders have taken their place.

**MORGAN & WRIGHT TIRES
ARE GOOD TIRES**

NEW YORK BRANCH: 214-216 WEST 47TH STREET.

In contemplating the disappearance of the one class the average observer is apt to overlook the presence of the other. Consequently he takes a pessimistic view of the matter and comes to the conclusion that cycling has gone to the dogs.

It is refreshing, therefore, to have the reverse side of the picture turned to view occasionally. This is done by the Des Moines (Iowa) Capital, which says:

"Bicycling was the fad once, but the craze has died out," is a common remark among those who notice the few cyclists that turn out for evening spins.

"If the persons who make it would get up at 6 o'clock in the morning they would take it back as they saw the hundreds of laborers and clerks who are riding to their daily work. Thousands of coal miners, clerks, business men and persons in every walk of life in Des Moines use the bicycle to get to their work in the morning and to take them home at night. Collectors and messengers use them unceasingly during the day.

"The wheel is now used as a business proposition. The cycling for pleasure that obtained when first the pneumatic sprang into favor has suffered a grievous decline, but the general wheel trade has improved this year in many respects. In the number of wheels sold this year will exceed last by from 15 to 25 per cent by a conservative estimate. Already the sales of wheels by the nine retail agents in the city mounts up to 1,593, with a nice and steadily increasing fall trade just beginning.

"The wheels bought this year are of a better grade than in former years. The large stocks of the manufacturers who failed some years ago have been exhausted for some time, and the public is beginning to realize very generally that a good wheel cannot be bought at retail for less than \$20 at the lowest. This consciousness has been brought about in many instances by experience with the \$14.99 wheels sold by large department stores and mail-order houses.

"The addition of the coaster-brake to wheel fixtures has added much to the ease and comfort of the riders, as it requires from one-third to one-half as much labor. It is now mechanically perfect and is giving very good satisfaction.

"With but one exception, all the bicycle repair shops in the city report that the repairing trade is much in excess of last year or any previous year in the history of the modern bicycle. 'Rushed to death,' 'working overtime,' 'have been flooded all year,' 'can't turn work out fast enough,' are some of the reports of the repairmen of the city.

"Harrah & Stewart, wholesale repair suppliers for Iowa and the West Central States, state that the demand for repairing work and materials is much greater than ever before.

"The wheel has spread not only to the laboring man in the cities, but it is now used in great numbers on the farms. Many agents in small country towns have sold from forty to fifty wheels this year. At Avon, a town with one store and a depot, the postmaster, who is also the bicycle repairer, buys regularly from \$15 to \$20 worth of repairs each week from the wholesalers.

"The young people were the ones to get the wheels at first, but the farmer's wife has discovered that it is a fine thing to use to run down to the store or the postoffice at times when the 'men folks' have a use for the horses of the farm all day. Farmers like to see their boys and hired men get wheels, for it means so much less use of the horses, especially late at night.

"It is a well-recognized fact that the young bloods need no sleep at all, or, at best, a very few winks before getting up at 4 o'clock in the morning to begin the day's work, but the farmer always likes to have his horses well rested."

"Defects (in motorcycles) and How to Remedy Them." See "Motorcycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York.

BAD SEASON BEGINS

Australian Dealers Close up With the Coming of Antipodean Winter.

Hawthorn, Victoria, July 22.—Notwithstanding the impetus given business by the visit of the Duke and Duchess of Cornwall and York, trade seems to have relapsed into its former dormant state, actuated, perhaps by comparison with the lively time just previous, and the presence of the winter season.

The small makers are growing fewer in number every month, and in the first half of this year I can count no less than seven small shops having closed down in Melbourne and its suburbs.

The Dunlop Tire Co. are opening up a rubber mill in October, and are pushing in with the preliminary work. This firm has found the necessity of placing on the market a lower priced tier, in order to compete with the productions of outside makers, and report very good business through it.

Much of the business depression is due to the indefiniteness of what sort of tariff is to be adopted by the Commonwealth. It is not anticipated that the duty on cycles will be any lower, but that on motors (25 per cent ad valorem), could reasonably be cut down, as the great freights on these goods should be sufficient protection. Merchants, therefore, are in a great state of uncertainty, and have refrained from landing even ordinary goods, while in some cases merchandise has been sent into Sydney (N. S. W.) at present a free port, and there awaiting developments. It is considered that an average duty of about 15 per cent will be imposed.

There is, however, a great future for these states. The evil, to my mind, which at present exists is the overcrowding of the cities at the expense of the country districts. Take this state, Victoria, as an instance. It has a population of 1,200,000, 51 per cent of which is centered in four cities. The head is too big for the body. The chief cause is the great centralizing agency of the railroads, the extension of which has been pushed on with great vigor, so much so, that the treasury has to disburse about \$2,000,000 annually to keep them going. And it is considered a cheap way of opening up the country.

The bulk of the actual business done is still with the imported parts, assembled to order. 'Free' wheels are still growing in popularity, the Morrow being the best representative of the American coasters.

A Useful Telltale.

Give a dog a bad name and it will stick to him, asserts the old saw. Telltales are frowned upon by all right-minded people, and their lives are made as miserable as possible. But there are some telltales that are useful members of society, as it were. Their function is highly commendable, as many skilled workmen who make use of

them will declare, and any abuse showered upon them is totally undeserved.

Reference is had to the telltales sometimes used in case-hardening. This telltale consists of a piece of round iron, as near the size of the work to be hardened as possible, that reaches down into the centre of the pot, extending up through the cover about an inch, or just enough to make a hold for the tongs. The hole in the cover should be just large enough to allow the pin or telltale to slip out readily.

When you think the work has been in long enough, remove the telltale with the tongs without disturbing the pot, and plunge it immediately into cold water. There may be one or more telltales in the cover as desired. If the telltale shows the work to be hardened to sufficient depth, dump the contents of the pot; otherwise leave in longer.

The Retail Record.

CHANGES.

Bayonne, N. J.—David Horsley, 560 Boulevard to Avenue C, between East Twenty-second and Twenty-third streets.

Newport, Vt.—Martin White succeeds Will Hight.

Osakis, Minn.—Fred Klatt succeeds Claude Curtis.

Spencer, Ia.—A. Wilkins sells half interest to M. Vanitor.

Winona, Minn.—P. Herried succeeds Paul Kremven.

Keene, N. H.—Wilkins Toy Co. succeeds A. J. Sweeney.

Windsor Locks, Conn.—W. J. Miller succeeds F. L. Harvery.

West Chicago, Ill.—Clarence Perry succeeds O. S. Decker.

Buffalo, N. Y.—Amie Krumholz succeeds Finn & Chretien, 625 Main street.

Black River Falls, Wis.—W. F. Crombie succeeds Benson & Gunderson.

Plainfield, N. J.—The Frucht Bicycle Co., 224 Park avenue, advertise auction sale to close.

Malden, Mass.—William Stevens has purchased business of C. W. Coomes, Commercial street.

Penn Yan, N. Y.—Wilkins & Ellis have purchased repair business of Reed Bailey.

Peoria, Ill.—Dillo Schupp removed from 428 Fulton street to 506 South Adams street.

Westfield, N. J.—C. G. Embleton purchased business of J. Scriven.

NEW STORES.

Lyme, Conn.—H. P. Hilliar, Cone Block.
Miami, Fla.—Clark & Carroll.

FIRE.

Danville, Ind.—Newsome Bros., loss slight.

Tale of a Triplet.

To what base uses once highly prized articles are put! A Brooklyn dealer keeps intruders out of his repair shop by placing in front of the entrance a diamond-frame triplet. It has been stripped of tires, saddles, handle bars, pedals and such like impedimenta—everything of value, in fact—and stands there a melancholy reminder of the days when motorcycles were unknown.

BOTTOM BRACKET BOGEY

A Fifth Suit is Brought—Racine Firm the Favored one.

To the four suits pending against alleged infringers of the Smith bottom bracket patents a fifth was added last week. In the United States District Court at Milwaukee, Wis., suit was brought by the American Bicycle Co. against the Wisconsin Wheel Works of Racine, Wis.

The suit is brought, it is stated, to "restrain the Wisconsin company from infringing on letters patent granted in 1888 to William E. Smith. This patent covers the bottom bracket and the front fork device of the bicycle, two of the salient parts, and without making use of which it will be impossible to construct a bicycle."

In addition to this restraining injunction the A. B. C. asks that the Wisconsin Wheel Works be required to render an accounting.

The news is not likely to create either great surprise or alarm. It was discounted by the belief that the A. B. C. proposed to bring other suits, this action being foreshadowed at the time, some months ago, when those against Keim and the Crosby Co. were brought. The present suit is not likely to be decided in less than a couple of years, if it ever comes to trial.

The original suits, brought more than a year ago against the H. P. Snyder Mfg. Co. and the Eagle Bicycle Mfg. Co., are still dragging slowly along. In the former the taking of testimony is still unfinished. The Keim and Crosby suits are not returnable until the end of August, and nothing has yet been made public regarding them.

Fears not the Future.

There is no question in the minds of Secretary and Treasurer F. C. Finkenstaedt of the National Cycle Mfg. Co. as to the cycle business being able to fend for itself.

He was a New York visitor last week, and to the *Bicycling World* man he expressed himself with emphasis on the subject. There was no need to regard it as a tail to the automobile kite, he said, and any such view of the matter was a mistaken one. Next year—and others as well—would take care of itself, that is, he added with a quiet smile, if the weather would permit.

Asked about the 1902 patterns, he said that his company was not yet ready to say anything for publication, notwithstanding preparations were pretty well advanced. The fact that it is no longer easy to make radical changes was dwelt upon rather significantly.

Mr. Finkenstaedt is a clever man with the pen and knows how to use printers' ink intelligently. He is one of the very few men in the trade who realize the value of well written circulars and of "following up," and who knows how to do it.

If
You Are
Interested
in
Automobiles



WILL SURELY
INTEREST YOU.

It is published for the information
of the average mortal; no dic-
tionary of mechanical
terms is needed to
understand it.

PUBLISHED EVERY THURSDAY
AT 123-125 TRIBUNE BUILDING,
NEW YORK CITY.

\$2.00 PER YEAR.
10 CENTS PER COPY.

SAMPLE COPY ON APPLICATION.

The Three Drawing Cards.

According to a successful hardware man the three drawing cards of business, which, when held and played together, seldom fail of their expected successful results are: The newspaper that brings the people to your windows; the window show, that brings the people to your store, and the merchant's affability and welcome, which keep them there and make customers of them.

W. F. Van Houton, formerly superintendent of the Olive Wheel Co., Syracuse, N. Y., has been appointed manager, succeeding the late Don B. Smith.

COMFORT

with

SPEED

is the

CUSHION FRAME

Motto.

The CUSHION FRAME is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold WITHOUT IN THE LEAST DETRACTING from the SPEED or POWER of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy, "get there" riders who at first "scoffed" the idea of COMFORT being combined with "speed and power" in a bicycle.

HYGIENIC WHEEL CO.,

220 Broadway New York.

Owners of the Cushion Frame Patents.

1832 BEVIN BELLS 1901

They Represent

the rich and ripened experience of nearly seventy years of bell manufacture.

If

"Experience is the best teacher" and if "practice makes perfect"—and most people will agree that the proverbs speak truly—then our claim that Bevin Bells are best — are perfect is beyond dispute. Certainly if it were possible to make anything better we would be making it.



GET CATALOG.

Bevin Bros. Mfg. Co.

East Hampton, Conn.

BUSINESS FOUNDED 1832.

AS IN THE OLD DAYS

Fixed the Chain Himself—Kerosene and Tallow Principal Ingredients.

Even the best chain needs attention occasionally. That fact impressed itself on the Bicycling World man a short time ago. It was only a little short of a year since the chain on his machine had been given a thorough cleaning and lubricating, and when this is remembered it was not really surprising that it called loudly and reproachfully for attention.

It is a chain of the roller type, and if such chains have one feature more noteworthy than another it is their ability to run tolerably well when in the worst possible condition.

This chain had long since reached that stage. It was as dry as punk; every particle of the lubricant had become worthless through long usage, and the exterior of the chain was encrusted with mud and dust of a score of different varieties. It was a standing indictment of its owner, and he should have been thoroughly ashamed of the consequence of his neglect.

It had been patched up many times by the simple expedient of rubbing a stick of lubricant against the side of the chain that engaged with the sprocket teeth. This stopped the groaning for a short time, but in a few days it would be as bad as ever. It was plain that the time for doing nothing had gone by. Heroic measures were called for.

The most natural course would have been to take it to a repair man and have him clean and lubricate the chain. But the charge that riders nowadays are of the butlerly class, ignorant of the construction of the wheels they ride and unable to make the slightest repair or even adjustment, or else too lazy to do these things, occurred to him and made him pause.

"I'll show them," he cried, addressing imaginary critics, "that I haven't forgotten all I ever knew about cycles. I'll fix the chain myself and make as good a job of it as any repair man that ever made a charge. I did it hundreds of times in the old days, and why not now?"

So he set to work to make good his boast. The first step was easy—a visit to the kerosene can, the transferral of a portion of its contents to an old tomato can, and the placing of the chain, previously taken from the cycle, in it. It only remained to put the can in a safe place and let it stand over night. Nothing difficult about that, surely.

"Have the grocer boy bring a bit of tallow to-morrow, unrendered if he hasn't it rendered, and I don't suppose he has," the better half was instructed. "I'll lubricate this chain when I come home to-morrow night."

The tallow—unrendered, of course—appeared on schedule time, and the chain was found to be as clean as a whistle. But there was a good quarter of an inch of a dark,

unpleasant looking substance at the bottom of the can to show that the cleaning process was not superfluous. This and the oil were emptied out and the can refilled with tallow and placed on the gas stove. Then with sleeves rolled up and chain close at hand the amateur repairer waited for the tallow to melt.

It was slow work, and it must be admitted that the protests—both loud and deep—from the feminine portion of the household were not altogether uncalled for. At last, however, the tallow was rendered, or sufficiently so to permit the chain to be covered by it when placed in the can. After letting it stay on the stove for a few minutes, to let the hot tallow force its way into all the joints of the chain, it was removed and set to cool.

Then the chain was taken from the can and the surplus tallow removed by wiping the former with an old rag. It came off in chunks at first, and the links would not move freely, so much grease was embedded in and around them. But a little working remedied this and the chain was ready to be placed on the sprocket wheels.

Upon this being done, a preliminary spin was given and the chain ran over the teeth in the smooth, almost noiseless way that tells the tale of well kept transmission gear. After clearing away the debris and removing as far as possible all evidences of the work—a task of some difficulty, for the smell of the tallow remained in the house for several days—a ride was taken. It proved that the operation had been well performed, for the machine ran as "sweetly" as the most fastidious rider could have wished.

At the same time, the job is not one a rider is apt to fall in love with. It is like riding a very hard hill on an extremely hot day; it may be well occasionally to do it, just to show that it is possible; but as a regular diet it can well be foregone. So it will be found advisable to turn the chain over to the repair man. He will do the work as well or better, and his charge will be small.

Makes Them Stick.

Handle bar grips seldom come loose nowadays, the method of fastening in vogue being a vast improvement over that employed when the cork grip came into common use. They are not entirely proof against this failing, however, and the following is recommended as an inexpensive way to repair the matter:

Obtain from the dealer a small bottle of fish glue, the contents of which pour into the grip gradually, holding the grip in an oblique direction to allow the liquid to trickle slowly down the sides. Replace the handle on the bar, and in a few hours it will require the strength of a Sandow to remove it.

.. ho Knows all About Motor Bicycles?

There is a demand, albeit somewhat limited at present, for demonstrators for motor bicycles. An advertiser in a local paper wants a salesman who is also qualified to fill the above position, and asks all such to state salary desired and other particulars.

AS TOLD BY THE KICKER

Valve Stems Still Give Trouble Across the Water—The Reason.

There are "kickers" in every trade, and as far as some of them are concerned it would be a waste of effort to try to convince them that their complaint is ill founded.

In this country, at least, the methods of attaching the valve to the inner tube or outer cover of a tire have long ceased to give any trouble to speak of. Perhaps it was the introduction of the all-metal valve and stem that spurred other makers on until they improved their patterns. At any rate, neither metal nor rubber and canvas stems now afford any ground for complaint. They perform their allotted task in a satisfactory manner and give a minimum of trouble.

But if a usually well posted English writer is to be believed, a very different state of affairs prevails on the other side of the water. Speaking of tire troubles, and particularly of those appertaining to valves, he says:

"Most ordinary valves are badly made, not excepting those of some of the most notable manufacturers. Their great fault lies in the two penny-halfpenny way in which they are designed to be fixed into the inner tube. That little tab of solutioned canvas which you see around every valve stem, and firmly solutioned to the outside of the inner tube, has no business to be there at all, and the only reason it is there is to try to make amends for the bad fixture provided by the usual run of valve heads. Now, a piece of india rubber, such as is used in the best inner tubes, is the very best substance which can be had to make an airtight joint with a metal pipe, providing the fixture by which it is attached to the metal pipe is properly designed. That the fixture on an ordinary Dunlop or other valve is not properly designed, each one of you can prove for yourself by carefully carrying out the following experiment:

"Take an ordinary valve stem and insert its head through a small hole punched in an ordinary inner tube. Now, without attaching any canvas tab, put on the long washer and screw it down tightly with a spanner by means of the usual back nut. You will find that in nine cases out of ten you will gradually crowd the rubber out away from the valve stem, until it actually gets so pressed out that an air hole is opened up.

"Supposing that this does not actually take place when the tire tube is deflated; it will of a surety take place when the tire is inflated in position. That tab of solutioned canvas is applied to the surface of the inner tube to prevent this crowding out of the rubber by reason of its comparative inelasticity, and is a huge farce and nothing more. It is the cause of endless bother and trouble through tubes leaking 'at the valve,' as we call it, and it is only because valve makers have been too slow or too lazy to find a more satisfactory fastening than that abomination of a canvas tab that is still attached to our inner tubes."

The Show Window and Its Mission.

The show window is invariably considered by the public to be the partial index of the store contents, and the better the display and the more elaborate this index the surer the results of its mission, writes a merchant who practises what he preaches. Good attractions draw better than poor ones. Who would not rather listen to a brilliant orator than to a poor one? Who would not rather see a magnificent work of art than a daub, or listen to a grand opera singer than to a cheap concert hall howler? Your window should have the same consideration that you give to the employment of your help; it is your first silent salesman, and can give no offence, except through your own fault.

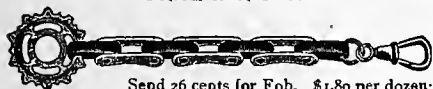
"Motocycles and How to Manage Them"; 126 pages, 41 illustrations; cloth bound. \$1. The Goodman Co., Box 649, New York. ***

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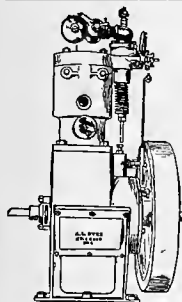


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PRICE IS RIGHT.



Send 26 cents for Fob. \$1.80 per dozen.

INDIANA CHAIN CO., Indianapolis, Ind.
BRANDENBURG BROS. & WALLACE, Salesmen,
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BUILD Your Own AUTOMOBILE

We have been selling parts for this purpose for three years.

We have customers who are pleased.
Send stamp for new catalog and testimonials.

GASOLINE ENGINES and PARTS from a SINGLE SEATED VEHICLE to a TRUCK.

Dyke's Spark Coil \$8.50.
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All kinds of Automobile Supplies.

A. L. DYKE, Office, Linmar Bldg., St. Louis, Mo.
Originator first Auto Supply Co. in America.

NEW SYSTEM

of Gasolene Engine Ignition, "Autogas" Dry Battery, double porcelain insulated Ignition Plug, Secondary Coil, etc.

WILL SEND

1/3 DOZ. of my Automobile Dry Battery anywhere, f. o. b. New York, **FOR \$3.**

Write to-day for circulars, and mention Bicycling World.

WILLIAM ROCHE,

Inventor and Sole Manufacturer of New Standard Specialties.

42 YESKY STREET, NEW YORK CITY.

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wheels must have the
best equipments.

There is nothing that gives more value for the money than the use of the

MORSE TWIN CHAIN ROLLER

NOISELESS IN MUD, WATER OR
DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless
Rocker Joints. Insist on having the
Morse Twin Roller. Fits regular
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Send for Catalogue and
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HAND AND FOOT PUMPS,

Oilers, Repair Tools,
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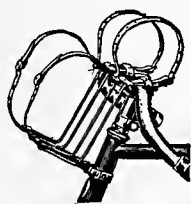
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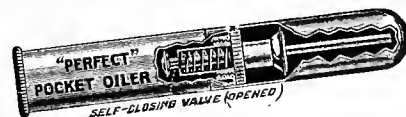
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JOBBER, ATTENTION.—Bicycles stripped in lots of from 500 to 5,000 at special prices that are very attractive for early delivery. Wise buyers will communicate immediately with "E," care Bicycling World.

NO. 2 LOCOMOBILE STEAM MACHINE, good as new, ready for immediate delivery, and guaranteed. Price \$485.00. A. L. Dyke, Auto Supplies, Office Linmar Bldg., St. Louis, Mo.

"PERFECT"**OILER.**

For High Grade Bicycles. The best and neatest Oil in the market. **DOES NOT LEAK.** The "PERFECT" is the only Oil that regulates the supply of oil to a drop. It is absolutely unequaled. Price, 25 cents each. We make cheaper oilers, also.

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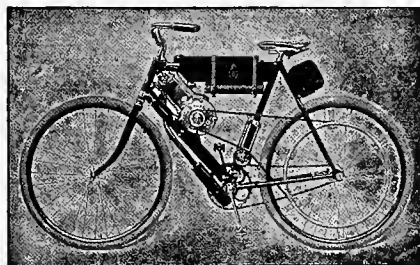
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Unequaled in any of the Points which make
a PERFECT Hanger.
LIGHT, SIMPLE, DURABLE.

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FOR
TIRES, SUNDRIES & TOOLS
GOODS UP TO DATE PRICES TO PLEASE
BROADWAY BICYCLE & SUNDRY MFG CO.
7 & 9 WARREN ST. NEW YORK.
SEND FOR OUR CATALOGUE AND
MONTHLY BARGAIN SHEET

WORLD'S RECORDS

1 Mile 1 Min. 22 1-5 Sec.
5 Miles 7 Min. 05 4-5 Sec.

were made at Buffalo, Saturday, Aug.
17, on the Stadium track, on the

AUTO-BI

with our regular 1 1/2 I. H. P. Motor.

PREVIOUS RECORDS

1 Mile 1 Min. 23 1-5 Sec.
5 Miles 7 Min. 10 4-5 Sec.

with a motor three times the weight
and rated at double the power.

You see we continue to occupy our regular position as motor cycle makers—that of the leader and the maker of the best—the AUTO-BI.

THE E. R. THOMAS MOTOR CO., Inc., 106 Broadway, BUFFALO, N. Y.

The Week's Patents.

680,213. Luggage Carrier. Alfred L. Baker and Arthur W. Taylor, Bakers, Michigan. Filed August 29, 1900. Serial No. 28,405. (No model.)

Claim.—1. In a receptacle of the class described, a rim, and extension slats having upstanding portions secured to the rim and forming side walls of the receptacle.

680,235. Gearing for Cycles. Robert Eccles, Ballywalter, Ireland. Filed October 4, 1900. Serial No. 31,962. (No model.)

Claim.—In a cycle gear the combination with the driving axle mounted on the lower end of the seat pillar tube, of cranks upon said axle, links connected to the cranks by joints, tread levers fulcrumed as on fixed ball bearing fulcrums, and having their arms connected to the links by joints, pedals upon the levers, and the forked bracket secured to the seat pillar tube, and having rigid arms supporting the fixed ball bearing fulcrums of the levers at the lower extremities of said arms, all arranged substantially as shown and described.

680,387. Rubber Cement. Leslie R. Moore, Newton, Mass. Filed May 24, 1900. Serial No. 17,826. (No specimens.)

Claim.—1. A new composition of matter for use in the arts consisting of the combination with solutions of caoutchouc and similar gums of a reducing agent, substantially as herein set forth.

680,413. Lamp. Frederick B. Hayden, Belleville, N. J., assignor to William R. Noe, East Orange, N. J. Filed April 16, 1901. Serial No. 56,035. (No model.)

Claim.—1. In a lamp the wick tube described consisting of a single piece of sheet metal and comprising the body portion, the wings provided with openings at their line of junction with the body portion and easily bent portions connecting the former to the latter and opposite sides of the openings, all substantially as herein specified.

680,486. Detachable Tire. Herbert E. Irwin, Galesburg, Ill. Filed July 14, 1900. Serial No. 23,628. (No model.)

Claim.—1. The combination with a wheel-rim, provided with a peripheral groove, which is undercut at its sides, of a tire casing, provided with marginal lips or flanges, each of said flanges having on its outside a bead, and having on its inside a surface which is opposite said bead, and recedes with relation to the inner surface of the outer casing, proper, and having also on its inside, and beyond the surface a surface, said surfaces being adapted and arranged for reciprocal engagement, so that when the parts are assembled in normal relations, the surfaces will leave between them a substantially V shaped space, and so that when the surfaces are brought together the surfaces will be separated, allowing the beads to disengage from the overhanging flanges of the rim, substantially as described.

680,493. Bicycle Fork. Alfred J. Neunier, Cleveland, Ohio. Filed April 9, 1900. Serial No. 12,157. (No model.)

Claim.—1. A front fork for a bicycle, comprising two fork sides secured together by two crown plates, one of said crown plates being provided with two vertical openings, which allow it to slip down on the upper ends of the said fork sides, and the other crown plate having two lugs formed on its under side, said lugs being adapted to fit into the upper ends of the respective fork sides, a fork stem rigidly mounted between said crown plates, curved bracing rods ex-

tending upwardly from the lower end of each of the said fork sides to a point immediately below the said lower crown plate and means for securing each of the said bracing rods to each of the said fork sides, comprising a plate provided with two upwardly and divergently projecting members adapted to fit into the lower ends of the respective fork sides and bracing rods, substantially as described and for the purpose set forth.

DESIGNS.

34,932. Pneumatic Tire. Isaac S. McGieran, New York, N. Y. Filed April 9, 1901. Serial No. 55,114. Term of patent, seven years.

Another Way to Join Aluminum.

Some months ago the *Bicycling World* commented on a method of brazing or joining two pieces of aluminum together invented by a Brooklyn man. The process was a secret one, but a number of specimens were shown to demonstrate that success had crowned the efforts to accomplish this much-sought end.

A German concern is said to have been equally successful. Particulars of the German method of joining are given, as follows:

"The two ends of wire, or the edges of the sheets of metal to be joined, are raised to the temperature at which the metal softens and becomes plastic. While in this state the ends of wire or edges of the sheet are kneaded together, and the temperature and the kneading are maintained until the metal at the joint has become thoroughly incorporated and a homogeneous mass is obtained. The joint is then allowed to cool, and when the process has been well carried out the joint is as strong or stronger than other portions of the wire or sheet.

"The principle of the method, it will be seen, depends upon the property of aluminum of softening and becoming plastic much below its melting point. This characteristic of the new metal, while it renders it of little value for purposes which would expose it to a high temperature, yet carries with it some compensations. One of these is that it offers a solution of the problem presented by the satisfactory jointing of aluminum."

Was First to Help.

Although unreasonably belated, praise of the bicycle is not the less welcome. Martin Dodge, director of the United States Office of Public Road Inquiry, gives much credit to what he calls "the reflex influence of the bicycle and the automobile" for forming the public sentiment which is crystallizing into the betterment of highways in all parts of this country and Canada.

Dealers Sell Them.

Connecticut dealers are helping the cause of sidepaths in the Nutmeg State by keeping on sale the sidepath licenses which the new law requires those using the sidepaths to carry. These licenses cost but 50 cents, and they entitle the owner to ride on any sidepaths in the State. They are good for the calendar year.

The Week's Exports.

Great Britain continues to take goodly quantities of American cycles and material. London and Liverpool last week getting the bulk of the shipments. British West Indies and Copenhagen also figure prominently on the list. As a whole, however, the week shows a falling off from the previous large total.

Antwerp—5 cases bicycle material, \$350.

British West Indies—45 cases bicycle material, \$1,167.

British Australia—1 case bicycle material, \$17.

Copenhagen—39 cases bicycle material, \$1,146.

Dutch Guiana—28 cases bicycle material, \$711.

Genoa—1 case bicycle material, \$50.

Hamburg—19 cases bicycle material, \$807.

Hayti—21 cases bicycle material, \$38.

Havre—27 cases bicycle material, \$285; 9 cases bicycle material, \$336.

London—26 cases bicycle material, \$575; 91 cases bicycle material, \$3,027.

Liverpool—12 cases bicycle material, \$1,732; 8 cases bicycle material, \$270.

Lugano—1 case bicycle material, \$50.

Moscow—1 case bicycle material, \$50.

Rotterdam—24 cases bicycle material, \$666; 17 cases bicycle material, \$380.

St. Petersburg—1 case bicycles, \$50.

San Domingo—2 cases bicycles, \$40.

Sheffield—1 case bicycles, \$10.

Smyrna—2 cases bicycles, \$100.

Want us to Co-operate.

Reforms move slowly, and not infrequently the men who originated them have passed from the stage ere they witness the success of their projects.

As to the merit of the metric system there are few, if any, dissenters. But to adopt it, to make the plunge from the present systems—or lack of them—there's the rub! Caution in making such a momentous change is admirable, but there has already been enough of it, and it is about time that a forward step should be taken.

The Canadian Manufacturers' Association has been looking into the matter for some little time. Its executive committee reports that it is now desirous of placing itself on record in this important matter.

While the association would be opposed to any individual action on the part of the Dominion of Canada looking toward the adoption of the metric system, it is unhesitatingly in favor of the Government of Canada supporting any movement to have a conference called of representatives of Great Britain, the United States and other Anglo-Saxon countries in order to facilitate the adoption of a common system of weights and measures upon a decimal basis.

Letters to this effect have been ordered to be sent to the Minister of Inland Revenue of the Dominion of Canada, the secretary of the Chamber of Commerce of London, and the secretary of the National Association of Manufacturers of the United States.

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., Thursday, August 29, 1901.

No. 22

DEALERS' DEAL

New Engtanders to Form a Buying Association—The Details.

For several weeks there have been quiet intimations of developments in the Boston trade which, it was asserted, would prove to be of the sensational order. The nature of the news was not even hinted at, it being a profound secret.

From an authoritative source the Bicycling World learns the particulars. The plan is nothing more or less than to form a gigantic co-operative purchasing association among the New England dealers. This association would purchase sundries, tires, etc., on an immense scale, supplying such dealers as were members with everything they needed in these lines. Being able to buy as advantageously as even the largest jobbers, the association, it is supposed, would practically eliminate the jobber, who would find himself, like Hamlet, "his occupation gone."

In detail the plan is to form an association of dealers, each of whom will pay into the treasury \$25 per month, from September 1 to December 1, inclusive. This will give the association \$100 in hand from each member for use as a working capital. Supposing that there are 100 dealers in the association, the latter will be able to go into the open market and pay spot cash for large quantities of goods. These will be sold to the subscribing dealers at an advance of 5 per cent over factory cost, and to outsiders at advanced prices. The members of the association will thus benefit both as buyers and as stockholders.

The scheme is a large one and many ifs stud its path. But those behind it, the leading spirit being a well known Boston tradesman, are said to be in earnest and hopeful of bringing it to a successful issue.

Motor Bicycle's Turn.

To ride from Land's End to John o' Groat's, thus completely traversing the British Isles, used to be a task of some magnitude. The feat has been performed on the high bicycle, the hard-tired safety, the pneumatic-tired

safety, the tricycle, the automobile, and now comes the motor bicycle.

On August 3 Hubert Egerton started from the Land's End Hotel, mounted on a Werner bicycle, bound for the northeasternmost point in the wild highlands of Scotland. No effort was made to accomplish a record, or even to make fast time. One or two slight mishaps to the machine occasioned a little delay, but everything went well until the journey was wellnigh over. Then a bad gash in a tire and two collisions seriously interfered with his plans, entailing a loss of nearly an entire day. The destination was reached on Wednesday, August 7—four days eight hours after the start.

The distance is about one thousand miles, and it has been covered on a bicycle in about three and one-half days.

Will Sell Reed & Curtis Pedals.

C. J. Iven & Co., of Rochester, N. Y., have been appointed selling agents for the line of pedals manufactured by the Reed & Curtis Machine Screw Co., of Worcester, Mass. This move sets at rest the story that the well-known Worcester firm contemplated retiring from the pedal business. They were the first in the field, and they are evidently determined to maintain their hold on the trade.

Raised the Checks.

Herbert E. Thompson, well known in the Western bicycle trade, a salesman for the A. D. Meiselbach Co., of Milwaukee, Wis., has been arrested and jailed, charged with embezzling about \$1,000. He raised the amounts of five checks and had them cashed.

Snell and Kirk in Boston.

Treasurer Ransom, of the Snell Mfg. Co., will go to Boston this week, with Manager Kirk, of the Kirk Mfg. Co., with a view to establishing a New England distributing point for Snell and Kirk bicycles, formerly handled by the United Supply Co.

Dividend Does not Prevent Decline.

Although a dividend of 2½ per cent is payable on the bonds of the American Bicycle Co. on September 1, a sharp decline took place in them early this week. On Tuesday sales of \$12,000 were made at 70 and \$2,000 at 66.

RANSOM RETURNS

And Says new German Tariff will do Good Instead of Harm.

After a flying visit lasting just thirty days—ten going, ten there and ten returning—to Germany, J. R. B. Ransom, treasurer of the Snell Mfg. Co., is once more in harness.

He had an enjoyable trip, and feels decidedly encouraged over the outlook for foreign trade. Oddly enough, this is shared with regard to Germany, too, notwithstanding the determined efforts made to prevent the sale of American bicycles in the Fatherland. Mr. Ransom even goes further, and regards the threatened increase in the duty as a good thing.

It will, in his opinion, operate against the exportation of the cheaper classes of machines. But as far as the better ones are concerned it will not bar them, and they will have a better chance in consequence of the clearing out of the stuff that has done so much to discredit American bicycles.

Debenture Holders Consent.

The first step toward indorsing the plan of reconstruction of the Dunlop Tire Co. has been taken. On August 14 the debenture holders of the concern unanimously voted for a resolution offered by the secretary which bound them to carry out the proposed plan.

This vote affords no inkling of the fate of the scheme, however. The position of the debenture holders is entirely unchanged, and no trouble whatever was anticipated from them. The next move is to poll the holders of preference stock, after which the ordinary and deferred stockholders must be reckoned with. The ordinary holders are regarded as the stumbling block. They suffer severely, while the other classes of security holders are benefited by the reconstruction. Upon their attitude depends the success or failure of the scheme.

Fisk to Open a Branch.

The Fisk Rubber Co. will shortly open a branch at Boston, Mass. Mr. Dunn is now in that city to arrange the details, the location, management, etc.

NOT UNTIL 1904

Will the German Tariff Increase Become Effective—Its Probable Effect.

This country is fortunate in having for its consular representative at the German capital such an enterprising and clear-headed man as Consul-General Mason.

Writing from Berlin, he dissects the proposed German tariff law bill, referred to in these columns a short time ago, tells of its probable passage and points out just how it will affect the consumer and the exporter. He also depicts in a graphic fashion the storm of opposition the publication of the provisions of the measure has called forth, and their futility.

"On July 17 there appeared in a newspaper published at Stuttgart what was recognized as an authentic version of the new schedule of import duties on cereals, meats and domestic animals that forms part of the bill for the revision of the German tariff law, which has been under discussion and preparation during the past two years," he writes.

"These duties on food materials revealed a general advance of from 50 to 300 per cent, and showed that notwithstanding the depressed condition of German industries and meagre grain harvests the agrarian plan for a general advance in duties on agricultural products had been thus far triumphantly carried. This aroused on the part of the whole liberal, industrial and commercial press such a storm of indignant protest that the government deemed it wise to show what the new tariff act proposed to do for manufacturing interests, and the full draft of the act was therefore officially published on the afternoon of the 26th inst.

"The bill, as now formally announced, is incomplete to the extent that the Federal Council has not yet completed its discussion of certain provisions, but it is accepted as it stands as embodying what the government is willing to concede to the Agrarian party, which, by virtue of its numbers, compact organization and determined purpose, exerts a dominant influence in the imperial Parliament.

"Any changes that may hereafter be made in the draft that will be finally submitted for enactment will relate to minor details, and will not affect its general bearing on the import trade of Germany. The new law will take effect on January 1, 1904, so that between the dates of its enactment and enforcement there will be a period of probably a year or more, during which its provisions may be to some extent modified by concessions granted reciprocally in commercial treaties with other nations, which, as is expected, may be negotiated during the intervening period.

"In respect to American manufacturers the most notable advances made by the present bill are in the rates on shoes and bicycles,

and these have been granted in deference to loud, long and impassioned appeals from German manufacturers, who have professed to find the ruin of their industries in American competition. The increase of the import duty on bicycles and finished parts thereof to 150 marks (\$35.70) per 100 kilograms will mean that an American bicycle weighing approximately 22 pounds (10 kilograms) will pay \$3.57 import duty, instead of about \$1, as heretofore. This will exclude cheap, low-grade wheels, but not good ones.

"Public discussion of the measure is for the moment confined mainly to two points—the alleged inadequacy of the proposed duties on manufactured products, which, as usual, are far from satisfying the demands of interested parties; secondly and principally, the effect that the heavy advances in the duties on food materials will have upon the non-agricultural population of Germany. The resulting burden that would be laid upon the dwellers in cities and laborers in factories, railways and mines will be readily apparent.

"It is not simply to restrict the imports, but to raise prices in the German grain and meat markets, that the new duties are demanded. These increased values, applied to the 22,300,000 tons of wheat, rye, oats and barley which Germany raises in an ordinary year, and added to the enhanced duties which would have to be paid on imported food materials, would create a new burden, which, as the Berliner Tageblatt declares, would 'revolutionize the whole economic, industrial and commercial status of the German people, drive a large proportion of the laboring classes back to a diet of blackbread and potatoes, diminish the productive strength of the nation and its consequent powers of competition, and by provoking reprisals from agricultural nations like Argentina, Austria and Russia—to say nothing of the United States—imperil the foreign markets for German manufactures, which have been to so large an extent the mainstay of the empire's export trade.'"

For File Users.

To clean used files the user is recommended to hold them for a minute in a steam current with a pressure of 40 pounds per square inch, when the file is absolutely clean and looks like new. To sharpen or cut the file it is advisable to hold it in an acid bath, consisting of seven parts of water, three parts sulphuric acid and one part nitric acid, after which a clear water and milk-of-lime bath clears them. Brush the file then with a mixture of olive and turpentine oil, and afterward with fine pulverized coke.

On a Large Scale.

According to a Pittsburg (Pa) dispatch, an Eastern rubber manufacturing company desires to locate at McKeesport, Pa., that labor-agitated town. The concern wants a free site of eight acres of ground, and guarantees to employ between 4,000 and 5,000 people. It is said to have a capital stock of \$5,000,000. A bicycle dealer at McKeesport has placed the matter before the Board of Trade,

SPOILED HIS GAME

Got a Demand for the Lamps Then Cut the Price.

A good—or, rather, a bad—story of American merchandising is told by an American now in England. It relates to a well-known bicycle lamp, and is an excellent illustration of how not to do it when dealing with foreigners.

"When this lamp was first introduced in this country," he says, "a big sale resulted from extensive advertising. Then, in order to increase the turnover, the American representatives went in for what they thought were smart moves in selling—planting firms with enormous quantities, giving sole agencies with the freedom of price lists, and so forth. The consequence not unnaturally was a flooding of the market with these lamps at any price, in order to reduce stock, with the result that the lamp was ruined. Moreover, this sudden reduction of price frightened the public away.

"Afterward the agency was secured by a British concern, who ran it on right lines, and a trade is slowly being built up again; but there will for some time exist the suspicion that there may be a renewal of the former break in prices."

Scorched on Motor Bicycles.

When great speed is kept on tap, the turning of a lever being all that is necessary to produce it, the temptation to do so is sometimes too great to be resisted by the average man. In such cases the remedy is the strong arm of the law. It was applied this week in New York to two motocyclists, who were each arrested and arraigned at different times for fast riding. One was dismissed with a warning, it being his first offence and he promising to be more careful in future. The other was accused of being a persistent violator of the statutes, and he was held for trial. Both men used motor bicycles.

A Mark t Now, Court Says.

Frank M. Starbuck, of Glens Falls, N. Y., who was appointed receiver for the firm of Laraway & Wells, Baker's Falls, is making an inventory of the stock, the sale of which will begin later in the week. The application to have the firm declared bankrupt has not yet been acted upon in the United States Court. The receiver was appointed, however, the Court concurring in the view presented that there is a market at present for the stock of bicycles and other goods, but there would not be where the appointment of a receiver was made in accordance with the usual custom of the court.

Judgment for \$199 has been entered against Edgar A. Holmes by the Manhattan Hardware and Bicycle Co., of New York.

BRAVE BRUCKER!

Publishes the "Columbia" in Berlin and Sings Praises of Americans.

A courageous man is always to be commended and admired. He may not win his battle, but at any rate he has made an attempt to do so, and when a man does his best he has nothing to reproach himself with.

Daniel in the lions' den, however, is as nothing compared with the position a Chicago "German-American" has placed himself in, and this voluntarily. The task essayed is nothing less than to allay the ill feeling entertained in Germany toward this country and to bring about more cordial and intimate relations than now exist. This, in the face of the proposed new German tariff law, is a task of magnitude, and one the hopelessness of which would be felt by any one unable to differentiate between the surface clamor and the real feeling that may be underneath.

It appears that the gentleman in question, Joseph Brucker, the managing editor of the Illinois Staats-Zeitung, has started a German journal for the sole purpose of enlightening the Kaiser's liege vassals on the subject of their true interests. This is a bold undertaking, and to an outsider it would seem as if even the name of the journal, the Columbia, was something akin to waving a red flag at a bull. However, that is Mr. Brucker's lookout.

"Joseph Brucker has started Columbia," says a foreign correspondent of the Iron Age, "which is printed in Berlin and written in German, with the view of counteracting as far as possible these unhappy tendencies."

"He proposes, first, to open headquarters in the city of Berlin and to publish Columbia, which is avowedly a trade paper, and which he hopes will be patronized by advertisers both in Germany and America."

"Secondly, he will establish a bureau of information. In that bureau catalogues, price lists, drawings of machinery, models and samples will be shown, and information given to those desirous of establishing trade relations with the American manufacturers and merchants."

"Third, he will watch closely such political events as may lead to any change in the trade relations with the two countries. He will write for the principal papers in Germany articles which he deems necessary to correct any erroneous impressions or to repulse the attacks of narrow-minded and selfish interests."

"Fourth, by personal acquaintance with influential people in government and parliamentary circles and the leading bankers, manufacturers and merchants, he hopes to accomplish much."

"Fifth, he proposes to maintain constant communication with those American firms who interest themselves in the enterprise."

"Lastly, he proposes to lecture in Germany on such American subjects as will benefit American interests, and also on typical American institutions, cities and manufacturing centres."

"The first number runs to forty-eight pages, is excellently printed, carries thirteen pages of advertisements, mostly American, and should do something toward facilitating trade between America and Germany. It may perhaps be mentioned that the United States buys from Germany about \$100,000,000 worth per year."

Double Century on Motor Bicycle.

Once the habit of being a pioneer takes root it is difficult to eradicate it. Dr. Doolittle, of Toronto, Canada, exemplifies this. Not content with being a pioneer of the bone-shaker, the high wheel and the safety, to say nothing of having invented the back-peddalling brake, he is now pointing the way to the motor bicycle.

Only a week or two ago he rode a double century, his mount being a Thomas Auto-Bi. The distance, slightly over two hundred miles, was covered in fifteen hours, the road being very bad in places.

Having bought a Thomas Auto-Bi last April, the doctor has been using it steadily in making his professional visits, and these have several times taken him to points many miles distant from town. He states that his machine has now carried him over 2,300 miles without any repairs being required, and he estimates that on the average a gallon of gasoline, costing 18 cents, has been sufficient to drive him from 125 to 140 miles.

Not Easy to Explain.

Serious and even fatal accidents to bicycle riders are a common occurrence in England, the land of good roads.

In the current issue of the Cyclist no less than four of these are noted in two short paragraphs. One was fatal—due to losing control of a brakeless machine; a second resulted in a fractured skull, when a machine "ran away" with a rider; in a third the rider was thrown from a bridge into a river fifty feet below, in consequence of a broken chain, and the fourth is described as a "bad accident," due to lost control.

Such items arouse one to ask what this means. Are hills steeper and more dangerous, riders more reckless or unskilful, or machines more unreliable over there? One of the three causes must be at work.

In this brakeless land there would be a tremendous outcry from the "Yellows" did such things happen.

Changes at Hartford.

F. H. Bosson, for many years manager of the bookkeeping department of the Pope Mfg. Co., of Hartford, Conn., and later with the American Bicycle Co., has retired from that corporation. Miss A. L. Farrell, who was for twelve years assistant manager of the advertising department of the Pope Co., also resigned a few weeks ago, and accepted a position with "Outing," in New York City.

DUNLOP DRUBBED

For the Fourth Time the British Courts Decide Against it.

Once more the Dunlop Tire Co. has appealed to the British courts for support in its efforts to crush obnoxious licensees of its patents, and for the fourth time it has met with a crushing defeat.

It appears that a licensee of the Dunlop Co., the Grappler Tire Co., entered into an agreement with the Cheshire Rubber Co. to have the latter manufacture certain portions of this tire. This "manufacture" consisted in preparing the fabric of the outer tire to receive the wires; this piece of fabric was then sold to the Grappler Co. The latter then inserted the wires and again sold the part to the Cheshire Co., which concern then proceeded to complete the manufacture of the tire.

It will be readily seen that it was merely a subterfuge to regard the licensee, the Grappler Co., as the manufacturer of this tire. It was licensed to make and market a certain tire, under the Welch patents, and to guard against any change being made in this tire a sample was deposited for the purpose of comparison should there be any dispute. Under the circumstances, it would seem as if the Dunlop Co. had a clear case and would win in a walk.

Just the reverse was the case, however. On the trial of the case, which took place in the Chancery Division of the High Court of Justice, a sweeping decision against the big monopoly was rendered. Justice Buckley, in giving judgment, said that in his opinion the purpose of the deposited tire was to identify the manner in which the Welch principle was to be employed by the licensee. What the Grappler Co. were authorized to do was to apply the Welch patent in a certain limited form to the construction of tires. In availing themselves of that license they might purchase their material where they liked, and it was not necessary for them to make the canvas themselves or to solution it themselves, nor were they bound to complete the construction of the tire by putting on the outer tread of rubber.

No doubt the plaintiffs might grant a license restricting the licensee to complete the tires himself, but they had not done so in this case. The action therefore failed, and must be dismissed, with costs.

The milk in the cocoanut is this: The Grappler Co. is one of the licensees that the Dunlop Co. does not regard with favor, and which it harasses at every opportunity. That the former should escape so easily will give encouragement to those fighting the big tire concern, and spur its enemies on to fresh efforts to discredit and hurt it.

It is stated that an appeal from the decision will be taken.

ANOTHER CHAMPION ON A NATIONAL.

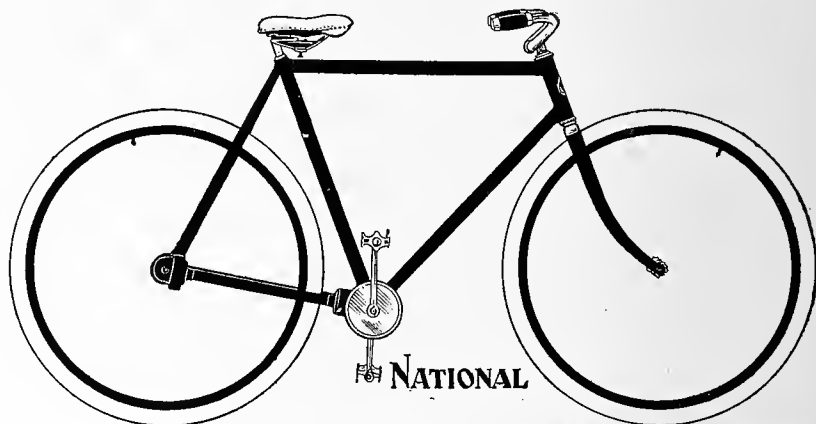
EDDIE "CANNON" BALD SAYS:

BUFFALO, N. Y., June 11th, 1901.

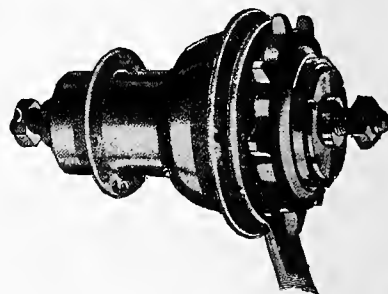
National Cycle Mfg. Co., Bay City, Mich.:

Gentlemen:—The Model 44 Cushion Frame Coaster Brake Chainless National Bicycle has been one of the most satisfactory mounts I have ever had. It makes an ideal wheel for business purposes, and I can recommend it to anybody desiring a complete bicycle embodying all the latest improvements.

EDDIE C. BALD.



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Life insurance adds nothing to your pleasure, and benefits
only those who live after you. :: :: :: ::

The Morrow returns immediate dividends of pleasure and
increases your personal safety—a quick back-pedal and dan-
ger is averted. :: :: :: :: :: :: ::

TO AGENTS:



That's another strong argument that will help make business for you
if you know how to use it.

ECLIPSE MFG. CO.,

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ELMIRA, N. Y.

THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
the "The Wheel" and the "American Cyclist."

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 649.

NEW YORK, AUGUST 29, 1901.

Good out of Bad.

There is rarely a cloud, no matter how terrifying it may be at first sight, that does not have a silver lining. The blackness is always relieved, even if only to a very slight extent.

It is so with the new tariff law which the German Government has proposed to adopt. It was framed deliberately and with malice aforethought, and those responsible for it can well plume themselves on their success in erecting a tariff wall that can be surmounted only with the greatest difficulty. There is no doubt that they have done this.

In the proposed bill bicycles were hit hard. The duty on all machines going into Germany is raised from 40 marks to 150, or nearly 400 per cent.

At first blush this appeared to be the culmination of a long series of attacks on the American bicycle. The latter was so extensively imported into the Kaiser's bailiwick that the home trade staggered under the

blow, and has never recovered from it and other misfortunes.

By preaching and carrying out a veritable crusade against American machines many telling blows were struck at the one-time flourishing trade. Shipments fell off until they were but a shadow of those of former days. It really looked as if the end might not be very far off.

Upon the heels of this success came the news of the 400 per cent increase in duty. That settles it, was the natural exclamation. American bicycles will soon be a thing of the past in Germany.

But reflection leads to entirely different conclusions.

The proposed increase is nearly 400 per cent, to be sure. But the figures given in dollars and cents put a different complexion on the matter.

The 150 marks duty is per 100 kilograms, or 220 pounds. At this rate the duty per bicycle would be about \$3.50, as against about \$1, the present rate. Such an advance is serious, but it is by no means prohibitory.

On the contrary, it should work to the advantage of the better class of American manufacturers. The cheap stuff will undoubtedly be seriously affected. The duty of nearly \$4 will constitute an impassable barrier to such goods as are now lying unclaimed and almost uncared for in warehouses at Hamburg and other ports. As a dumping ground Germany will no longer be a favored spot.

But the best class of American bicycles can still be profitably sold. The retirement of the "cheap and nasty" machines will leave a clearer field for them, and the future competition will be one of quality and design instead of one of price alone.

For this unexpected good fortune, even though the new duties cannot become effective for some time, thanks can be extended to the blatant agitators who sought to exclude us entirely.

A Good Fault.

It has been frequently remarked that the cycle of to-day bears entirely too much resemblance to the "one-hoss shay" of blessed memory—it comes uncomfortably close to being unwearoutable.

There is unquestionably much truth in this allegation. Even the sight of hundreds of repair shops, many of them kept busy throughout the entire riding season, tinkering, replacing parts and even rebuilding machines, does nothing to discredit it. It is

taken for granted, of course, that machines with reputations are meant.

A great deal of the repairing referred to is necessitated by accidents. Another very considerable portion consists of repairs to and replacements of tires, saddles, pedals and other parts that are, as everybody knows, of a perishable nature. No surprise is aroused by the necessity for their renewal.

But the major part of the bicycle does last for an unconscionable time.

It used to be that a season's use took the best out of a machine. Even if there were no marked changes in the new patterns, the up-to-date wheelman considered it wise to part with a machine that had been pretty well racked to pieces, and provide himself with one fresh from the factory. He thereby avoided tinkering with the old wheel, and was spared the feeling of insecurity incident upon its use.

Dealers at least, sometimes riders, counted on a frame or front forks giving way after a machine had been in use two or three years.

That such collapses were due to "crystallization" was a very comforting belief. It stalled off unpleasant inquiries and was a sort of "no one to blame" verdict, such as few riders were rash enough to question.

Most of the other parts were subject to a like deadly mortality. The cups and cones would wear through or crack or chip or do something else equally unpleasant; and replacements had to be made, and were regarded as a matter of course if they did not put in an appearance too soon.

These things were, in some pleasant sort of way, regarded as the penalty for such blessings as extremely light bicycles. They did not reflect on constructional methods nor cause any special uneasiness to makers or dealers.

That is, of course, provided they did not happen too soon.

But times have undergone material changes since then. The bicycle that will not be practically just as good—finish excepted—at the end of two or three or even four years as when it was new is looked upon askance.

And it must be confessed that the good machines do not often come in for such unfavorable regard. They stand the test in a manner that a few years ago would have been incomprehensible. The demand for more durable bicycles has been met, almost before it was formulated.

It is a little hard on the trade, of course. The repairer, the dealer, the maker—each

thinks he would be happier if the longevity of cycles were not so great.

But it is far from being certain that such would be the case.

Some Interesting Comparisons.

A prosaic occupation is that of the hardware dealer, yet full of suggestiveness for those cycle tradesmen who are really desirous of improving their storekeeping methods.

Neglect of little things is a fault that few hardwaremen can be justly accused of. It would be impossible for them to conduct their business unless they looked out for such things. The arrangement of their shelves, each of the hundreds of small articles being in its place, properly ticketed, marked and displayed, speaks louder than words regarding this. System is the shibboleth of the hardwareman, and without it he could not get along for a single day.

But it is not to system alone that this meritorious merchant owes his success. He is enterprising, progressive, quick to perceive an opportunity and no less so to seize it. If one does not present itself he makes it.

He makes the changing seasons play into his hands. He is never without seasonable goods. He does not even limit himself to four seasons, but subdivides them and hauls out articles of merchandise peculiarly adapted to each minute subdivision, and displays them to such purpose that people buy who never would have thought of doing so had they not been reminded of real or fancied wants. The genius of storekeeping is contained in such methods.

The average cycle dealer is too apt to be lacking in initiative.

He waits to be prodded, to be reminded in some way that it would pay to make a push on this or that article. He does not ply his customer with suggestions or beguile him almost before he knows it into purchasing something that takes his fancy. He waits for the buyer to make the first move.

For example, at the present time the evenings are shortening, but their growing coolness tempts riders who were lukewarm during the hot spell. Yet how many dealers have reasoned that lamp sales could be easier made if they were pushed properly, and that more riding should be accompanied by an increased demand for sundries? Few, indeed, compared with those who wait for riders to come in and ask to be shown lamps and sundries.

It is not easy to imagine the hardware-

man being so unenterprising. He would long ere this have filled his windows with the articles referred to and used printer's ink freely to call attention to the attractive offerings he was making.

The cycle dealer, on the other hand, makes the mistake of dividing the year into two seasons—winter and summer—the "off" season and the "on" season.

During the one he regards as hopeless any attempt to interest buyers.

From the beginning to the end of the succeeding one he places everything in the same class—bicycles, parts, sundries. That they should be taken up separately, the display varied, the push being made now on one thing, again on another, rarely occurs to him.

If he would take example of the hardware dealer he would thereby profit mightily.

Why This Superiority?

It has been years since anything really new has been brought out, yet the cycle of to-day is unquestionably superior to that in use even a short time ago. Why is this?

Even the standard, medium-priced machine, chain driven, fixed geared, rigid framed, large tubed, impressive in its simplicity, is an improvement over its prototype of the late nineties. One has but to compare, to ride, the two differently dated machines to be convinced of this. Lowered price has not resulted in lowered quality or decreased efficiency. There is scarcely any escape from the conclusion that there has been, on the contrary, an improvement in construction.

If the more up-to-date machines, the *modeles de luxe*, are turned to, it is seen that there is little there that is new if the machines are viewed in detail. As a whole they are new, as well as improved, and on that score they are noteworthy.

It is probably the bringing together on one machine of a number of features usually tried—and sometimes discarded—one at a time. A brief recapitulation will demonstrate this.

The cushion frame, for example, is old in principle if new in application; the coaster, or "free wheel," was used many years ago, and was considered a disadvantage to a machine; the back-peddalling brake was a flat failure when it made its appearance nearly half a dozen years ago; even the chainless bicycle can scarcely be regarded as new, when it is remembered that it was made and marketed even before the back-

pedalling brake, and it, too, failed to achieve popularity.

It is the same way with nearly all the less important features of the bicycle. Sprockets have been at various times large, small and medium; handle bars have been wide and narrow, low dropped and high upturned, elaborately curved and coiled, and severely plain in shape. Frames have been high and low, with slanting and with straight seatpost tubes, with short heads and long ones; and the tubing itself has been alternately large and small, curved and straight.

In fact, every "new feature" has been in vogue before, every "improvement" hailed as such years ago. And, with very few exceptions, all have at one time or another been discarded.

The truth of the matter is that no one feature can possibly make or mar a bicycle.

It is the combination, the grouping together of this and that and the other point, sometimes insignificant in itself, coupled with the gradual improvement in both design and construction, that has brought the bicycle to its present high state of perfection.

Large sprocket wheels and wide, heavy chains were inferior to the small, light ones that supplanted them. But the latter in turn were held, and truly, to be vastly inferior to the big ones which took their place. The art of making sprocket wheels and chains had undergone vast improvement meanwhile.

The coaster alone was no improvement; rather a disadvantage. The back-peddalling brake was better, but alone it was not impressive. The combination of the two supplied what was wanting in them separately.

It is the present bicycle as a whole that is superior to anything before placed on the market.

The one-eighth inch chain has had a good trial by this time, yet no complaint of it is heard. This is good evidence that the claims originally made for it were well based. A well-designed, soundly constructed chain will stand almost any reasonable usage. Clumsy and inexperienced riders had better let the small chain alone. It will do them no good, and they will almost certainly do it harm.

After having been ridden but about five miles, the rear tire of a motor tandem recently examined by the *Bicycling World* man became so hot that the hand could not be held on it.

CYCLING'S ILLNESS

What has Caused it, the Seriousness of the Disease and its Probable Recovery.

What is the matter with cycling? Is it dead, the boom "busted," the wheel destined to take its place with the roller skate and as a pleasure vehicle disappear from the public view? If the pessimists are to be believed, this is its approaching fate.

Or is it that there is nothing wrong with cycling—that is, nothing more than was to have been expected, and than can be and is being slowly righted? Are the quidnuncs, the know-it-alls, the I-told-you-sos, barking up the wrong tree and betraying a solicitude that is quite uncalled for? Is the trade merely passing through vicissitudes that are the forerunners of better times, the avant courriers of a shrunken but solid business, quite up to the average as things go nowadays?

These are pertinent questions, and they are being asked by anxious, not to say perturbed, tradesmen, who know full well that upon the answers depend their future as cycle manufacturers, dealers, etc.

ASKING THE QUESTIONS.

In common with many others who wish the trade well the *Bicycling World* is deeply interested in the matter. Its representatives have asked the questions noted of many people, both in and out of the trade, and they have inserted a probe wherever there seemed to be any likelihood of extracting anything that would throw light on the matter.

On the one hand, there is emphatic and indisputable testimony to the fact that sales have dropped off alarmingly, and that pleasure riding, by comparison with that indulged in a few years ago, had dwindled to almost insignificant proportions.

"It is wonderful what a bold cycle racing has obtained," remarked a gentleman who formerly occupied a position of great prominence in the cycling world to *The Bicycling World* man a short time ago. "But the enthusiasm seems to be confined to track racing.

"I was out awheel on Sunday for the first time in several years," he continued, "and I was literally astounded at the absence of wheelmen. The parks, the Boulevard, the nearby roads, all were almost deserted. I could not help letting my mind go back to '96 and '97, when these places were fairly black with cyclists, and wondering why the change had come about.

These words describe the situation to-day pretty accurately. The places referred to are deserted; their former habitues know them not. Furthermore, such people have, as one would imagine, ceased to cycle. The two-wheeled machine no longer has charms for them; like a squeezed orange, it is tossed away, never again to be given a thought.

In short, the cycle is no longer on parade.

It does not fill the public mind as it once did, almost to the exclusion of every other pleasure. No more do poor people go without proper food and clothes to buy bicycles, or well-to-do ones place them before horses and carriages. Summer evenings, Sundays and holidays have ceased to be given up entirely to the fascinating but evanescent cycle. At the most, it now takes its turn, and is but one of many diversions.

THE SUPERFICIAL VIEW.

"The bicycle business has gone all to pieces, hasn't it?" inquired a young lawyer whom the *Bicycling World* man met casually. "I've got a couple of bicycles up to the house, but we never use them any more. No one rides now, or, at least, very few people, do they?"

"I never saw much in it myself, to tell the truth," he went on. "Of course, when all our friends went wild over cycling, and people expressed their surprise at our reply when they said, 'Why, don't you ride at all?' we had to get into the swim. But we never did more than do a little riding in the parks. For my part, I was rather relieved when the fad died out."

Of such people and of many others who took to cycling for reasons slightly different, but quite as far removed as those which actuated the real lover of the wheel, cycling had more than its fair share.

This is not surprising when the intensity and universality of the "craze" is recalled. The net was large and strong, and the waters were effectually dragged; hence, it was inevitable that many strange and undesirable fish should have been numbered in the catch. At the time they could not be readily distinguished from the good fish, and when they began to run away matters looked worse than they really were.

TRUTH OF THE MATTER.

But there is, as always there must be, a reverse side to the picture. Pleasure riding, although sadly shrunken, has not quite died out. The butterfies of the parks, the asphalt streets and boulevards did not number in their ranks all cyclists. Nor do the really earnest riders, those who cycled ardently and quit because they went it a little too strong, make up the total. There is a saving remnant, and it bids fair to grow in numbers and strength every year.

It is all a question of comparison. The sight of millions of cyclists monopolizing the streets and roads and forsaking everything for the cycle has almost spoiled the sense of perspective. What would in the early '90's have seemed a large turnout can now be found awheel on any fine Sunday or holiday. But the riders are more scattered; they ride further afield and pay less attention to speeding and mileage than was once the case.

A reaction comes whenever a movement has been pushed too far or has run its course. The happy mean is rarely observed. People used to cycle too little. All the joyous, health-giving rides they indulged in during the "boom" could have been taken just as

well a few years earlier. They would have been just as beneficial, quite as enjoyable.

Now these same people ride too little. They are tired of cycling. The novelty has worn off; it is too much trouble to get ready, it is too hard work, too warm, too dirty, too anything. They have not the same desire as formerly, and are not willing to make the same sacrifices as of old, even when they know that the return received will be greatly multiplied. The strong impelling force that was once present is there no longer. Hence the cycle stands neglected, and its rider is vaguely conscious of an aimlessness in his life that was not there formerly.

And all this transpires because cycling was overdone. Many riders made a business—and a very serious business—of pleasure. They became worshippers of the God of Mileage, set themselves difficult, often impossible, tasks, and rarely permitted themselves to take time to breathe.

But it is not to be supposed for a minute that the present state of affairs will always continue. Riders have tired of cycling before—and have come back. The present "slump" was much more severe and greater in extent than any previous ones; but that was only because the "boom" that preceded it was also gigantic in its dimensions. The higher the ascent the greater the fall, as a matter of course.

CYCLING'S NEW ZEST.

The bicycle still possesses all its old alluring qualities. Nay, it is more alluring than ever. Improved machines are procurable, and the rider who has never experienced the comfort of a cushion frame or the exhilaration, restfulness and safety of a coaster brake will, after trying them, find cycling imbued with new qualities, possessed of a new zest.

The broad, smooth highways, the shady sidepaths, the pure, fresh country air, the quaintness of nearby towns, the joy of motion, the satisfaction felt with successful effort—these have not lost their charm. They await the eager rider just as they did in former days. They will prove to be just as productive of pleasure as when cycling was young and enthusiasm ran high.

As a pleasure vehicle pure and simple, the bicycle may not, probably will not, regain its former place; but it is certain to undergo a certain measure of rehabilitation, to repossess itself of a considerable portion of the popularity that was once its meed. Just how far the pendulum will swing in its return journey is something that at this time no man can discern. But it will swing, and that surely.

But is the future of the trade—its success, even—dependent on the use of the pleasure bicycle? Is not that rather a side issue, insignificant by comparison with the business bicycle? What intelligent tradesman or observer of any kind will contend that the contrary is the case? That subject is a much vaster one, and one whose consideration is deferred until another time.

RACING

The defeat of Kramer by Lawson in a sensational finish and another dashing victory by Fenn in the 5-mile handicap were the features in the meet at Vailsburg, N. J., on August 26. Kramer had some trouble in disposing of Fisher, his former team mate, in a heat of the half-mile open, run championship fashion. He found Lawson, in the final, an even harder nut to crack. The latter led slowly, and just before leaving the backstretch Kramer strove to go by. Lawson was ready, however, and fought him off clear around to the straight. There Kramer endeavored to get in front, but failed by about half a length. Lawson's victory was a popular one, especially with his fellow racing men, notwithstanding talk of his unpopularity. Fenn did his good share of the work of bringing the back bunch up to the leaders in the 5-mile handicap, and on the last lap he shot to the lead and finished with several lengths to spare. Time, 10.15, beating his own world's record of 10.33 2-5. In the final of the 2-mile amateur handicap considerable dissatisfaction was expressed at the decision of the judges in placing the men. Lake, McConnell, Welsing and Billington was the order given, and the time 4.00. The latter, being much under record, was naturally looked upon with incredulity, and there is ground for the belief that but seven instead of eight laps were ridden.

Several startling reversals of form were in evidence at Charles River Park, Boston, on August 22. In a 25-mile team race, motor paced, Michael beat Elkes by half a lap, while Walthour and Champion were left far in the rear. The race was a novelty and a success in every way. The 7,000 spectators thoroughly enjoyed it. Champion fell by the wayside early, and then Michael and Elkes, who were team mates for the nonce, turned their attention to Walthour. For 12 miles he withstood the assaults, first Elkes and then Michael striving to wear him out, but at this point succumbed. Elkes did the turn, and thenceforth Walthour fell steadily behind, while Michael fought with Elkes for the lead. At 20 miles Elkes was still leading, but was shaken entering the stretch. Michael then went by and held his slight advantage, leading at the finish by half a lap. Michael covered 25 miles, Elkes 24 miles 1,500 yards, Walthour 23 miles 904 yards, and Champion 22 miles 736 yards. As it was a team race and total mileage counted, the Elkes-Michael combination rode 49 miles 1,500 yards, against 45 miles 1,640 yards covered by Walthour and Champion. Time of winner, 38.33.

In view of the fact that Providence, R. I., gives its track most generous support, it is only fair that exceptionally fine racing should be given on it. In a 25-mile motor-paced race on August 21, Stinson, fresh from his defeat the night before at the hands of

Michael, treated Elkes to a dose of the same medicine in almost exactly the same fashion. The men were started from opposite sides of the track, and Stinson at once essayed the task of closing the gap. Elkes fought heroically to prevent this, changing pace once while going at a terrific speed and without losing an inch thereby. By the sixth mile, however, Stinson was trailing his opponent, and a few laps later went by him. At nine miles he made it an even lap, and he kept adding to this lead until the 22d mile, when his tire punctured. Elkes, who was again riding strongly, endeavored to regain the distance lost, and nearly succeeded, being only $\frac{3}{4}$ of a lap behind at 25 miles. Time, 38.08 1-5.

After being for some time persistently heralded as a "comer," Michael has at last arrived at his oldtime form. At Revere Beach, Boston, he demonstrated this conclusively on August 20 by administering a good drubbing to Stinson. In a 25-mile motor-paced race, unmarred by accidents of any kind, he fairly rode the Cambridge man off his feet. The latter took the lead at the start, and was at once forced to make strenuous and exhausting efforts to prevent Michael from displacing him. After numerous and determined efforts to go by, the Welshman was at last successful in the eighth mile, and from there on he was never headed. Michael finished in the lead by $6\frac{1}{2}$ laps in 38.44 2-5. The fierceness of the early part of the ride will be understood from the fractional times. The 5 miles was done in 7.37 3-5, the 10 in 15.10 3-5—even faster than the first 5—and the 20 in 30.45 2-5. A 10-mile amateur race, open, was won by Mettling in 24.21 2-5.

It was Lawson's night at Madison Square Garden, New York, on August 23. He won the half-mile championship, thereby enriching his score by six points. Kramer was shut out in a heat, and Taylor did not ride. This left the Englishman, Gascoyne, in the grand final, and he fell an easy victim to Lawson. Collett and Fisher divided third money. The mile handicap went to Fenn, Hadfield getting second and Fisher third. Time, 2.00. Leander relinquished his hold on the 2.10 class by winning the mile race in that class in 2.09 2-5. The one-mile intercity team heat race between Hurley and Schreiber, of New York, and Mettling and McConnell, of Boston, had an unsatisfactory ending. There was a dispute whether it should be counted by points or heats, and matters were complicated by a foul in the first heat. It eventually went to the New Yorkers by default, their opponents refusing to ride a fourth heat. No motor race was run.

Two facts were brought out plainly at Madison Square Garden, New York, on Monday night. The first was that Walthour is in fine shape and perfectly at home on the 10-lap track. The other is that Nelson is just the reverse in both instances. The two met in a 15-mile motor-paced race, and Wal-

thour won by 15 laps, breaking all indoor records and finishing in 24.19 3-5. Nelson had pacing troubles, one machine puncturing and the other failing to work properly. But he was beaten before anything untoward occurred, and on that track was plainly not in the same class with his opponent. Schreiber won two fine races, a half-mile open and mile handicap. Joe Nelson rode a 5-mile exhibition, but accomplished nothing startling, his time being 9.19 2-5.

Kramer scored another win at Washington, D. C., on August 21, in the half-mile championship, beating out Fisher. Lawson fouled McFarland in the semi-final, and was disqualified. This led to a disgraceful row on the track at the finish, in which these two men and Newkirk were concerned. Lawson won the mile handicap from scratch, Freeman (30 yards) getting second and Jack Green (60 yards) third. Time, 2.01 2-5. The consolation race was graced by some famous names. Cooper won it, beating Kimble and Maya, who got the other places.

Lawson may be counted on pretty confidently to do the unexpected, and he came up smiling at Baltimore on August 20. In the half-mile championship race he defeated Kramer, catching the Pierce flyer napping in the grand final and crossing the tape a length in the lead. Kimble and Freeman divided third money. Cooper again figured in the list of winners, after a long absence, capturing the mile handicap, Freeman getting second and Wilson third.

McEachern crossed the border last week and was defeated in his own country by Champion. The drubbing was administered at Montreal on August 25 in a 25-mile motor-paced race. The margin was a scant one, however, but half a wheel separating the two men at the finish. Time, 39.19, Canadian record. Kent rode one mile on a motor bicycle in 1.19.

Either Moran is out of condition or he was overrated earlier in the season. He was easily beaten by more than a mile at Springfield, Mass., on August 23, Nelson administering the dose in a 20-mile race. Moran had pacing accidents, but they only made his defeat more pronounced. Time, 32.09 3-5, beating the track record.

In the remarkably good time of one hour for 39 miles, Harry Caldwell won over Ben Munroe at Brockton, Mass., on August 23. Up to 20 miles the men were together, but at this point a hard struggle ensued and Munroe lost his pace. From then to the end the latter fell back, being $6\frac{1}{4}$ laps behind at the finish.

Dispatches from Salt Lake City, Utah, state that on August 21 Smith, of that place, broke the amateur record for one mile, covering the distance in a handicap race in 1.57 3-5. The Turville brothers rode 10 miles on a motor tandem in 14.23 4-5.

"NOTHING DOING"

Few Spiders Caught in Manhattan Web— Both Stores Very Cautious.

For Philadelphians, with their proverbial slowness, the Manhattan Storage Co. last week made a very expeditious and complete right-about-face.

The change took place the latter part of the week—on Thursday or Friday, to be precise. At that time a, presumably, reluctant farewell was bid to the role of trade revolutioniser, and the two stores of the concern settled down to the more prosaic part of commonplace—and not very radical—price-cutters. They also dropped the story that all the goods on sale were taken to pay for storage charges.

A Bicycling World emissary who ventured into the Park Row store on Friday found that business was very quiet. But although he was the only "customer" in sight it was not easy to get waited on. The employees of the store were grouped around one of their number who held in his hands a copy of the current Bicycling World, which was open at pages 2 and 3. What they were reading appeared to cause them great concern.

A clerk did come forward somewhat reluctantly to wait on his supposed customer, but he showed plainly that his interest was in the publication referred to. After several efforts, however, he was able to pay attention to business.

He was asked first about the standard makes of bicycles advertised for sale. In reply he pointed to two or three second-hands, priced at about the customary figures. These were the machines referred to. There were no new ones of these makes, and no attempt was made to claim that the ones in question were new.

A little inquiry along this line made it plain that the day for extravagant claims and palpably false statements were past. In short, there was nothing interesting there.

The other store, at No. 44 Cortlandt street, was then tried. A more communicative clerk was encountered, but he was very cautious notwithstanding. What he did know was not enough to fill many books, but the number of things he was uncertain about was positively appalling.

He showed the Bicycling World man a tire at \$1.29, lettered "Columbia road tire." But he could not be induced to tell who made it or much about it. Another tire, the "Puritan," was \$1.78, and it was of unknown make also. Standard tires, the Hartford for example, cost \$3.25 each for the 77's. Reminded that this was little if anything cheaper than other cut-price stores offered, he became very non-committal. He evidently was not going to involve himself in statements that he could not substantiate.

Bicycles were next looked at. One at \$16.50 was pointed to, and praised as being something very fine. It bore the Manhattan

name plate, but the salesman did not know that, did not know who made it or whether it was seized for storage, nor even whether his concern made bicycles; thought they did something in this line, when he was cornered, but was not sure. In fact, the more he was questioned the less he knew.

As a last resort he was asked if he had any Wolf-Americans. No, he had none now, he said. Had he had any previously, and were they all gone? Thus pressed, he was unable to say whether he had ever had any, but thought there had once been a few second-hand ones. But he was not sure even of this.

At this point the Bicycling World man concluded to give up his role of interrogator as a bad job, and he left the almost vacant store followed by the gaze of several salesmen who had been attracted by the conversation.



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

Cycle's new Uses.

Truly, the bicycle is ubiquitous. According to one of the Boston "yellow" journals, the milkmaid now uses it during her peregrinations between the pasture field and the barn, made for the purpose of driving the bovines home. To accommodate her pace to theirs, she "gyrates along the road in huge overlapping circles." The same journal is authority for the statement that country landdresses also use the bicycle when collecting and delivering articles intended to be laundered.

Mecky's Motor Bicycle.

One of the latest additions to the ranks of motor bicycle manufacturers is A. Mecky, of Philadelphia, Pa. He has placed on the market a machine fitted with a 2¼ H. P. De Dion motor, which lists at \$250, with discount to dealers. The motor is carried inside the frame, just forward of and above the crank hanger. The belt system of driving is used, and but two levers are necessary for its operation.

HELD AT HARTFORD

Annual Meeting of Managers and Salesmen Combines Business and Pleasure.

At Hartford, Conn., this week a conference of the branch managers and salesmen of the Hartford Rubber Works Co. is being held. It is the custom of the company to hold such a meeting annually, for the purpose of outlining the business policy for the approaching season, and also to bring the officers and representatives together in a social function.

Among those present this week are President Lewis D. Parker, Vice-President F. H. Turner, Secretary W. H. St. John, Advertising Manager Burton Parker, and the following branch managers: E. R. Benson, Boston; E. H. Brandt, New York; W. B. Fewell, Philadelphia; A. H. Scoville, Cleveland; E. E. McMaster, Detroit; James How, Buffalo; D. L. Scoville, Washington; F. P. Hoy, Minneapolis; M. J. Tansey, San Francisco; F. H. Ayres, New York Uptown Branch; B. Brandt, Denver; J. B. Kavanaugh, Chicago.

Among the travelling men present were: Charles Fay, Joseph Rentall, H. Snyder, F. Kesser, J. Osterloh, R. Fidler, W. H. Kirkpatrick, A. W. Wykoff, C. B. Chandler, B. W. Snowman, E. W. Maynard, E. E. Denniston, J. W. Gilson, R. P. Parker, S. E. Gillard, F. E. Stockwell, Robert Rush, H. O. Harrison, E. B. Hamrick.

Wednesday was devoted entirely to social features, when the company gave a banquet at Compounce Lake, going and returning by special car. J. C. Wilson, former secretary of the company, whose retirement a short time ago was regretted, was present by special invitation, and during the banquet was presented with a handsome gold watch by Burton Parker, on behalf of the company's representatives present.

To Freshen Rubber Solution.

In buying rubber solution for plugging or repairing tires or inner tubes it is well to see that it is perfectly fresh. It dries up after being kept in a collapsible tube for a certain period, and there is nothing left but a little gummy substance that is certainly not worth the price paid for it. It will sometimes happen, however, that the solution will dry up while in a toolbag, and it is discovered only when there is urgent use for it. It is usually thrown away in disgust when this happens. A little naphtha, benzine or gasoline dropped on it will transform it into a liquid again, and while the quantity will be much diminished there will still be enough left to do some good.

"The Motor: What It Is and How It Works." See "Motocycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York. ***

HIGH MINDED

Scotch Highlanders Scorn the Safety—Still Ride the Ordinary.

Many answers have been returned to the oft repeated question, "Where do all the old bicycles go?" The farmers and farm-lands everywhere, the negroes in the South, the people furthest removed from the influence of civilization—these are credited with having absorbed the bulk of cast-off cycles.

It is now nearly a dozen years since the high wheel or ordinary bicycle gave way to the safety. Of the many thousands of such machines at one time in existence nearly all have disappeared. A few are preserved as relics of a regretted past. Others officiate as signs to advertise the business of their present possessors. Forlorn looking and weatherworn, most of them are but ghosts of their former selves.

In some remote corners of the earth, however, the high wheel is still a useful member of society. In the Scotch Highlands particularly, where centuries make little change and the claymore and the musket are still carried, the breeks and tartan still worn, it is considered extremely modern. Says a correspondent of "The New York Commercial-Advertiser":

"Sandy" is not ambitious, but he likes to be high up, for the wheel which he rides is not a \$100 chainless safety, but the old-fashioned high bicycle.

"When the safety was first introduced in Scotland—that is, in the large cities of the south, east and west—it quickly became popular, and resulted in the dealers becoming overstocked with second-hand high bicycles, which they had taken off the hands of purchasers of the new wheel. How to secure a market for the old ones was a problem which they had to solve.

"It was just at this period of the evolution of the wheel that the high bicycle was introduced into the Highlands. Agents were appointed in all sections of the extreme north, the man acting in this capacity generally being either the local blacksmith or hardware dealer. A goodly number of the old machines were disposed of in this way, and many of the bicycles, practically new, sold at a nominal price, so anxious were the owners to get rid of them. A large number of high bicycles were also exported by New York City dealers to Scotland, and were sold at prices barely sufficient to cover freight expenses.

"Notwithstanding the number of years the safety has been in vogue, the many attempts made to introduce it in the Highlands of Scotland have met with but poor success. The price of the second-hand safety has been brought within 'Sandy's' financial means, but for some unaccountable reason he will not take to it, and the high bicycle still pre-

dominates—an evidence of his unprogressive ideas.

"A fact that must be remembered, however, is that the workingman in the north of Scotland is poorly paid in comparison with the same class in America. He rarely earns more than \$5 a week, and with this small sum he more than likely has a large family to support. It will, therefore, be seen that the simple but sturdy Highlander is in no financial position to enjoy the luxury of an up-to-date wheel, even if he had an inclination in that direction.

"The result is that the safety bicycle is practically unknown to the simple folk of the far north. When 'Scotty' gets an opportunity, however, to examine 'the new-fangled idea,' as he calls it, through a tourist on a wheel who has chanced to stop at a farm or a wayside inn, his curiosity over it is unbounded, and his sometimes mild request for 'a bit turn on't' is not always granted.

"To see one of these countrymen mounted on a 28-inch wheel, his 'breeks' (trousers) tied just below the knees, and his general awkwardness, is a most amusing sight.

"His wheel, through negligence, has become decidedly rusty, with half the spokes loose, several broken and the tires worn to the rim. Further, 'Sandy' seldom takes the trouble to oil his machine, and as it is rarely fitted with 'ball bearings all over,' the result can be imagined. The general ricketyness of the 'turnout,' its sad need of oil, coupled with 'Sandy's' dinner pail, which is usually fastened at the rear end of the saddle with a string, make a din when the rider's powerful legs are 'cawin' the gir' (pedalling) for all they are worth at the rate of four miles an hour that would put to shame the noise of an American ice wagon.

"Sandy" does not mind little things like that, however, for, as he says, 'Hoot! What about it, as long as it dis the turn?'

"Notwithstanding the kind of wheel and hilly country 'Sandy' has to contend with, he can travel great distances without a stop and will climb a hill where a tourist with his up-to-date machine would be compelled to 'get off and shove' before half way up."

Why They Retaliate.

Something of the bitterness felt by the German cycle trade toward this country is accounted for by such items as this one, from a German correspondent:

"The decline of the German cycle industry still continues, a number of firms engaged in this industry having now declared themselves insolvent. Others have diverted their works into making other goods. During the last two years there has been a decrease of 50 per cent in the cycle trade. It naturally follows that the trade in cycle saddles and apparatus has decreased in proportion, while overproduction and increased competition have reduced prices. Thus, there is a large import of foreign cycles into Germany, the duty on such machines being only 2.50 marks."

LOOKING AHEAD

Baggage Agents Discuss Motorcycles and Automobiles—Drawing the Line.

The old order passeth and new problems come up for settlement. The status of a bicycle as a piece of baggage is pretty well settled by this time, a few arbitrary and archaic roads to the contrary notwithstanding. For that and other reasons it is almost removed from the sphere of discussion.

But its cousin german—some say its logical successor—the motor bicycle, has shied its castor into the ring and is demanding to know "where it is at." This will be determined in good time. Just at present the matter can wait. There is no especial need for hurry, as common sense will probably guide rulings for the present.

But already such motor vehicles as tricycles and quadricycles have been dignified by an adverse ruling, being excluded from the list of articles classed as "excess baggage." Yet even in such an extreme case as this, it would appear, the powers that be are not unanimous.

In an article that is plainly intended to be sarcastic the Railway Age makes this fact plain.

"Bicycles have ceased to travel and annoy greatly," it says, "but now it is tricycles and quadricycles of the automobile order that apply for admission to the baggage compartment.

"There is no more reason for treating as baggage a passenger vehicle propelled by legs, electricity, gas or steam than one propelled by horse or ox power; and yet some kindly passenger agents are disposed to favor carrying motor vehicles as excess baggage, while they would refuse to check a cart and horse, to say nothing of a coach and pair.

"The automobile is coming, has come, to stay, but it ought to come on its own legs and not ask the railway carriage to take up and carry it when it is tired. It is too big an infant for this already, and the statement that Mr. Vanderbilt has imported a machine that runs seventy miles an hour and weighs forty tons raises the question whether the automobile will not eventually be big enough to carry the railway car.

"When that time comes, will the mobile passenger agent be disposed to check the (steel) tired passenger car as baggage? If not, why not?"

How to get Good Colors.

To obtain bright colors, with parts to be case hardened, the work must be nicely polished and perfectly clean; poorly finished, greasy work will not take bright colors. A clean, brightly polished surface is necessary for the finest work.

End of the Cable.

The Cable Cycle Co., of Brockton, Mass., has, after a long period of inactivity, passed out of existence, the Commonwealth Motor and Engine Co. taking its place.

EXPERIENCE NO TEACHER

In Spite of the Proof of his Folly the Rider Still Bites.

"You've got an up-hill task ahead of you in your campaign against the 'cheap and nasty' type of tire," said a tradesman to the *Bicycling World* man recently. "But you ought to keep at it in the hope that it will do some good."

"No one but we who are in the business have any idea of the amount of tire trash that is sold every year," he continued. "The amount of money wasted—literally wasted—on worthless tires is something enormous; and the worst of it is that there are few signs of a reform in the matter. 'Once bitten twice shy' does not seem to apply in this case, for the very men who have the worst luck with cheap tires are the best customers of the dealers who sell them."

"I have in mind just such a case. A certain ex-dealer, who would be supposed to be the very last man to do a thing of the kind, has spent more money for cheap and worthless tires in the past few months than it would have cost him to rig himself out in the very best style."

"Having occasion not very long ago to take an extended trip, he looked over the tires of his machine to see if they were likely to carry him through successfully. The examination revealed the fact that one tire was in a dubious state, while the other was so far gone that any attempt to patch it up would have been futile. So he bowed to the inevitable and started out to purchase a new one."

"Now, this man knew all about tires. He had formerly sold all kinds—good as well as bad—and he knew just how unlikely the latter were to stand such a trip as he contemplated. You would think, therefore, that nothing but a first-class tire would have been thought of for a moment—a tire of standard make, known and sold all over the country."

"But no such thought entered his head. He was not going to pay \$3 or \$4 for such a tire. That would be throwing money away. Not even the fact that the old one, aged a little over two months, had cost him more than its original low price, to say nothing of the trouble and delay, could shake this determination. If he could get a good 'second' it would do him all right and he would save money."

"Well, he bought the tire—paid 75 cents or some such ridiculous sum for it—and started off. He got back a few days ago, and I heard about his troubles. They began almost before he got out of town. A puncture or two, then mysterious leaks that could not be stopped, and finally a burst in the tire. The other one went wrong, too, and between the two he was kept busy. Instead of getting to a town some sixty miles away, he was obliged to walk about six miles and put

up for the night at a place less than half way there.

"This day was a good one if an average were struck. Some days he got off pretty easily; at others things came with a rush. He tinkered at the tires himself, using about half a dozen repair kits in the various operations, and nearly every night he had to hunt up a repairman. Punctures were plugged, gashes sewed and bandaged up and bursts vulcanized."

"Delay and expense were the two items he had to contend with most of the time. It was a keen race between the two tires—the old and the new one—to see which could deflate the quicker and oftener. The old one had the advantage in having seen more service, and in being able, therefore, to go wrong oftener. But the new one was worse to start with, and when it did go the damage was more serious; so was the difficulty of repairing greater."

"The upshot of it was that he paid enough for repairs, cement, rubber plugs, etc., to buy a good tire, and his trip took him nearly twice as long as expected. But for all that I'll wager that his next tire—he needs two now—will be of the same stripe. He is buoyed up by hope—thinks he will get a good tire some day."

Oh, Yes, he was up to Snuff!

Just as Richard the Lion Hearted's name was used to scare naughty Saracen children centuries ago, so the English pressmen continue to hold up American machines as examples of cycle-buying folly.

This pretty fairy tale—the British mind has not yet got far enough along to dub such yarns "fables"—is told by that usually sensible journal, the *Cycle Trader*:

"The other day a young man was desirous of getting a new bicycle for the summer, so, hearing that a certain well-known firm would often allow so much on an old machine, he sallied forth and interviewed the manager."

"'Oh, yes,' answered the man in authority, 'we don't mind giving you something on your old cycle—say, £5 or £6—if it is in good order; but, by the way, what make is it?'"

"'It's an American machine,' said the youth, 'and is a very good one.'"

"The eye of the manager twinkled. 'Is it insured?' he asked."

"'Yes,' said its owner."

"'Then take my advice and try to get it stolen.'"

"The youth went away wondering."

A critic—especially if he were of the capacious order—might be impelled to say that the dealer who would name \$25 or \$30 as his offering price—a price sure to be increased if business were really in sight—on a second-hand machine of utterly unknown origin, did not deserve so good a fate as to have an American machine foisted on his unsuspecting self.

"Motocycles and How to Manage Them"; 126 pages, 41 illustrations; cloth bound. \$1. The Goodman Co., Box 640, New York. ***

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SELLING POLICY

In Foreign Countries the Salesmen Should be Consulted Thereon.

It is not altogether agreeable to reflect that it is by this time pretty generally acknowledged that the American's ability as a manufacturer is quite offset by his shortcomings as a salesman.

The success that has been won in foreign markets is small compared with what it might have been had the selling end been as well looked after as the manufacturing end. But this has not been done, and apparently will not be for some time to come. A policy that is completely successful with domestic buyers is about as wrong for foreign ones as can possibly be imagined. Yet such a policy is pursued, and then the manufacturer wonders why his sales do not increase.

The salesman on the ground, if he be of the right calibre, knows the proper methods to adopt. He should be left unfettered, left to work out his own salvation; then if he fails there will be little difficulty in placing the responsibility.

Chief among the sins of omission and commission committed in connection with the American bicycle invasion of Great Britain were the mistakes made in marketing the machines. Commenting on an article in an English trade journal, in which the selling methods employed with American cycles and sundries were handled without gloves, Consul Halstead at Birmingham hits the nail on the head when he says:

"The only comment I care to make on the editorial of the British bicycle paper as given above is that the editor assumes incorrectly that the mistakes he tells of in methods of selling were those of the American salesman.

"In nearly every case referred to I can almost say it is within my personal knowledge that the selling methods pursued were those stubbornly insisted upon by the American manufacturers, despite the protest of representatives whom they had personally selected to go abroad—men whose judgment has been much valued when they were in the home employment, but who found when they were abroad that practically no credence was given to their statements of the trade necessities here. Many a good American salesman has been recalled 'in disgrace,' and through no fault but inability to unnecessarily force American merchant customs in foreign markets.

"The story of the American salesmen in our new export effort, as I, as American consul, could tell it, would not be pleasant reading. The wonder is they have accomplished so much, and I must confess I have about made up my mind to quit reading statements of our jumping statistics, for, whatever are the totals, they only touch the unbounded possibilities; no matter how they soar, there is waste in effort and failure to take full advantage of opportunity.

"I have met hundreds of American salesmen since I have been consul here, and have had most pleasant relations and many friendly and confidential conversations with them. It is really a strange and unhappy fact that I have heard only three of these men express themselves as satisfied they have had proper home support. The case of one of these I will not mention.

"Of the other two who were satisfied, one is the son of the American principal and is given a good swing, but even his satisfaction hardly stood my cross-examination, and he left my office with a significant shake of the head, which I think I understand. The third man has been marvellously successful and naturally wants full credit for it, but admits he had a free hand, and that the opportunity to act as he thought best was due to the London partner of the business, who wrote repeatedly to his American associates demanding that they keep hands off and not interfere with their American salesman here."

Hot Shot f. om Australia.

While American parts and fittings appear to have lost ground in Australia, it is evident that the American bicycle has more than held its own. Witness this tart extract from the Australian Cyclist:

"If there is one thing which appeals to the man in the street just now it is the evident falling off of English machines in the interstates. Once it was all English and no American. To-day it is pretty well the reverse. Outside of the parts built machines there are few English wheels evidently in use. America has whipped the English makers clean out of sight. Why this should be so is a mystery. The English manufacturers seem asleep. There are very few English machines advertised. Even the few agents who remain seem ashamed to advertise their goods, preferring to build direct from parts. Whatever the cause is, England is getting fast supplanted by America. Once upon a time it was not so. England apparently is feeling the pinch from Germany and the Continent as well. It seems a big pity that the standard makes of Great Britain are not made known in this market. The English manufacturer is clean dead to his best interests. Why do not a dozen of the best houses in England combine, start a good going agency in Melbourne, and from under one roof let Australians have a bit more choice than the 'everlasting parts'?"

Soldering Aluminum.

Aluminum bronze containing less than 5 per cent of aluminum can be soldered by tin solder. If over 5 per cent, a good solder consists of 20 per cent zinc and 15 per cent cadmium. The surfaces are cleaned, a first and second layer of solder are laid on, the excess is removed with a brass scratch brush, and the pieces are then soldered as usual. Brazing is done with a solder containing 52 per cent copper, 46 per cent zinc and 2 per cent tin. For large pieces, direct soldering by fusion succeeds very well.

TESTARD'S TALK

Cycling is Still Indulged In Even Down in New Orleans.

One would not be apt to regard New Orleans as the most likely place to protest against the talk that the bicycle has gone to the demnition bow-wows. Once prominent in cycling circles, the Crescent City is generally supposed to be very lukewarm in its present use of the wheel.

One New Orleans dealer, H. A. Testard, however, comes to the front with a denial of the talk that people no longer ride. Even in New Orleans, he says, they are as numerous as ever, only they do not make as much display as formerly.

"In a good many quarters," he says, "the lessened noise and stir over the bicycle and things pertaining to it seem to have created the impression that there has been a marked decline in its use. This view, however, is not sustained upon close observation. In fact, taking the country at large, the reverse appears to be the case. Information from the best sources indicates that more bicycles are ridden now than at any previous time, and that the number in use is increasing at a rate that is very satisfactory to all who are appreciative of the numerous advantages to be derived from the use of a light, speedy and comparatively inexpensive vehicle which is adapted to a great variety of practical purposes."

Mr. Testard said that in his judgment the fact that the wheel was no longer a prescribed toy of society amounted to very little. Many of the ultra fashionable still take their cycling as a matter of course for its own sake and for the healthfulness of the exercise. Riding to-day cannot be considered either fashionable or unfashionable. The bicycle is in evidence throughout the length and breadth of the land as an implement of necessary use, recreation and healthful exercise.

In some of the largest centres of population, like New Orleans, for instance, where cycling gained a strong foothold at first, the riders are less conspicuous than formerly, fewer of them are seen together on streets and parkways, and there is nothing of parade and show in their doings as a class. This condition is true of many cities besides New Orleans, but because the wheelmen of the present do not run together in crowds after the manner of their predecessors, and are less exuberant in their talk and more restrained in their movements, it does not follow that there are not as many of them in the aggregate.

Highback Coaches on B. & A.

Commencing Thursday, July 11, the Boston & Albany R. R. will run vestibuled high-back seat COACHES between Boston and Buffalo, on trains 7 and 18, except Sunday, and on trains 29 and 36 daily. Also, Pullman parlor cars on trains 15 and 18, daily. ***

VALUE OF TRADE PAPERS

Advertisers can get Results if Proper Attention is Given Them.

"Those who occupy space in the advertising pages of the trade papers should be credited with a desire to get some return for the money invested in that way," says a writer in a trade journal. "Certainly a good trade paper is a valuable medium of communication between manufacturer and retailer, and if proper attention is given to the advertising results should follow.

"A trade paper, carefully edited and containing reading matter of interest to those in the trade to which it is devoted, is sure to have a choice circulation—small in number perhaps, but large in influence, reaching every live dealer, those who keep up with the times and are successful business men.

"Such men in their endeavor to reach and hold leading positions in the business race are careful readers of these trade papers; they do not confine their reading to the editorials and news columns, but scan the advertising pages with the idea of learning what they can of the goods offered for sale.

"It is important that more than the name, address and a list of goods appear in these advertisements; this point has been stated and emphasized more than once. The advertisements should contain something of interest to the dealer, told in a way that will impress him that the goods should be on his shelves and induce him to order at the first opportunity. It is just as important that a trade paper advertisement be carefully written and attractively displayed as it is that the ad of the department store be readable.

"The advertiser in a trade paper should describe his wares, explain in detail their good points and present reasons why they are desirable goods for the retailer to carry in stock. He should suggest how the different articles can be displayed to advantage, and give methods for successfully retelling the goods. If he is a general advertiser he should explain how his advertising in the magazines and similar mediums helps the retailer by stimulating the demand for his goods and making them more widely known.

"It is neither necessary nor desirable to crowd into one advertisement all the points and suggestions just referred to, but better to select one feature and describe it in detail, briefly mentioning other points, then in the next issue bring out another feature or outline a selling plan, and so on, varying the advertisements in each issue of the paper. In this way the interest of the readers is kept up, and the advertising will prove effective and produce results."

"Motocycles and How to Manage Them"; 126 pages, 41 illustrations; cloth bound. \$1. The Goodman Co., Box 649, New York. ***

HIGH GRADE

wheels must have the best equipments.

There is nothing that gives more value for the money than the use of the

MORSE TWIN ROLLER CHAIN



NOISELESS IN MUD, WATER OR DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless Rocker Joints. Insist on having the Morse Twin Roller. Fits regular sprockets.

Send for Catalogue and Trade Price to

Morse Chain Co., Trumansburg, N. Y.

HAND AND FOOT PUMPS,

Oilers, Repair Tools, Valves, Name-plates, etc.

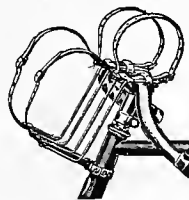
Spelter Solder

Sheet Brass, Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn.
Depots: 210 Lake St., Chicago.
423 Broome St., New York



LAMSON-PETERSON
LUGGAGE CARRIERS

The most serviceable made.

MEQUIER & JONES CO., Portland, Me.

WANTS AND FOR SALE.

15 cents per line of seven words, cash with order.

JOBBER, ATTENTION.—Bicycles stripped in lots of from 500 to 5,000 at special prices that are very attractive for early delivery. Wise buyers will communicate immediately with "E," care Bicycling World.

OILERS.

"PERFECT"



25c.

"CEM"



"LEADER"



10c.

"STAR"



We make oilers for almost the entire trade. The quality of our oilers is unequalled.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.

WOLFF-AMERICAN BICYCLES.

STEARNS BICYCLE AGENCY, - Syracuse, N. Y.

FAUBER PERFECTION HANGER.

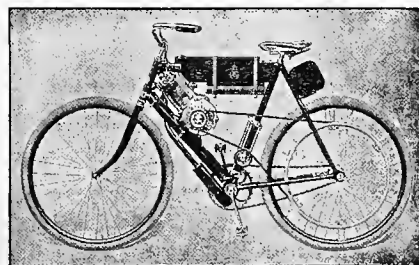
Unequaled in any of the Points which make a PERFECT Hanger.

LIGHT, SIMPLE, DURABLE.

W. H. FAUBER, Manufacturer, CHICAGO, U. S. A.

THE LEADING HOUSE
FOR
TIRES, SUNDRIES & TOOLS
GOODS UP TO DATE. PRICES TO PLEASE
BROADWAY BICYCLE & SUNDRY MFG CO.
7 & 9 WARREN ST. NEAR THE RAILROAD NEW YORK.
SEND FOR OUR CATALOGUE AND
MONTHLY BARGAIN SHEET

WORLD'S RECORDS



1 Mile 1 Min. 22 1-5 Sec.
5 Miles 7 Min. 05 4-5 Sec.

were made at Buffalo, Saturday, Aug. 17, on the Stadium track, on the

AUTO-BI

with our regular 1 1/2 I. H. P. Motor.

PREVIOUS RECORDS

1 Mile 1 Min. 23 1-5 Sec.
5 Miles 7 Min. 10 4-5 Sec.

with a motor three times the weight and rated at double the power.

You see we continue to occupy our regular position as motor cycle makers—that of the leader and the maker of the best—the AUTO-BI.

THE E. R. THOMAS MOTOR CO., Inc., 106 Broadway, BUFFALO, N. Y.

The Week's Patents.

680,725. Propelling Mechanism for Bicycles. Patrick G. McCollam, Easton, Conn. Filed Oct. 20, 1900. Serial No. 33,669. (No model.)

Claim.—1. The herein-described propelling mechanism for bicycles and similar vehicles the frames of which are provided with a crank-hanger, comprising a hub loosely mounted on the pedal-shaft, and provided at its outer end with an annular gear, a sprocket-wheel loosely mounted on the said hub, a circular casing secured to the pedal-crank and provided at its perimeter with an internal gear, a pinion connected with the sprocket-wheel and meshing with the internal gear of said casing, and with the gear on said hub, a clutch flange or disk secured to the pedal-shaft, spring-operated clutch-plugs, mounted in the inner end of said hub and adapted to engage with said clutch flange or disk, and a movable clutch-band mounted on the crank-hanger and adapted to force said clutch-plugs outwardly.

680,776. Pneumatic Tire. William E. Hoyle, Providence, R. I., assignor to Rudolph F. Morse and Samuel H. Boardman, same place. Filed Dec. 8, 1900. Serial No. 39,119. (No model.)

Claim.—1. A pneumatic or wheel tire, the same comprising a plain outer tube of rubber and a series of short cylindrical cellular sections of rubber mounted within and snugly filling said tube, the said sections having small independent airtight cells or pockets therein, for the purpose set forth.

680,816. Mud-Guard for Cycles. William J. Stevens, London; Henry E. Harrold, Lewisham, and Frederick R. Bluemel, London, England. Filed March 5, 1900. Serial No. 7,439. (No model.)

Claim.—1. Mud-guard support for cycles, consisting of the combination of spindle attachments, detachable stays adapted to be attached at one end to said attachments and provided at the other end with bent portions, and a bridge-piece adapted to be attached to the mud-guard and possessing open ends, provided with slots for the reception of the bent portions of the stay-ends.

680,862. Tricycle, Etc. John T. M. Hircok, Birmingham, England. Filed July 25, 1899. Serial No. 725,103. (No model.)

Claim.—1. In combination, the lug, the sleeves or guides connected therewith, the non-rotating hollow axles, movable in the sleeve and carrying the wheels to rotate independently, the screwed spindle journaled in the lug, and the gearing for turning the screwed spindle, part of the gearing being supported on the lug.

680,980. Bicycle. Hans G. Johnson, Waukon, Iowa. Filed Dec. 16, 1896. Serial No. 615,891. (No model.)

Claim.—1. A riding wheel comprising a driving-shaft, having cranks, a driven shaft having a crank, a pitman connecting a crank of the driving-shaft with the crank on the driven shaft, a casing mounted eccentrically on the driven shaft, a hub mounted loosely on the driven shaft, a pinion secured to the hub within the casing, a lantern-frame journaled to the casing and meshing with the pinion around which it rotates in the casing, having a pitman connected with the other crank of the driving-shaft, as set forth.

681,067. Connection-Piece for Pneumatic Tire Valves. James F. Morrissey, Springfield, Mass., assignor to Erastus N. Parker,

same place. Filed June 18, 1901. Serial No. 65,009. (No model.)

Claim.—1. A connection-piece of the character described, consisting of relatively rotatable barrel, and tubular stem members, the barrel member being constructed of cup form, with an axial shouldered opening through its base, and the stem member being shouldered, engaging in the seat formed by said shouldered opening, and having its extremity protruding within the chamber of the barrel, the packing-washer fitted in the base of the barrel, and closely surrounding the protruding portion of the stem, the flange or enlargement provided to the end portion of the stem member within the chamber, and a plug for closing the end opening in the cup-shaped barrel having a nipple extension and an axial passage there-through.

681,089. Tire-Repairing Tool. John I. White, Piedmont, W. Va., assignor of one-half to J. S. Helferstay, same place. Filed Feb. 6, 1901. Serial No. 46,227. (No model.)

Claim.—1. A repair tool for the purpose specified, comprising a shank having a handhold, said handhold being formed with a socket, a nut threaded on the shank, an anvil slidably on the shank, a plunger removably fitted to the shank, and a pusher member normally held in said socket, and adapted to be removably connected to the shank.

681,151. Tire for Vehicles. Frank Theodore, Greenville, S. C. Filed July 5, 1901. Serial No. 67,212. (No model.)

Claim.—1. In a pneumatic tire, the combination with the rubber inner and outer tires, annular rings upon each side of said outer tire, rivets passing through said rings and outer tire at regular intervals, and an overturned edge upon each of said rings; of a steel tire covering said outer tire, and overturned edges upon said steel tire adapted to interlock with the edges of said rings, substantially as described.

The Retail Record.

CHANGES.

Wellsboro, Pa.—W. E. Champaign succeeds J. W. Butts.

Adams, Mass.—M. J. Curran succeeds Curran & Powers.

Pittsfield, Mass.—W. J. Devall removed to Burns's Block.

Port Jervis, N. Y.—Louis De Berhle succeeds Peter Rutan.

Lancaster, N. H.—Beach & Parks succeed Beach & Sons.

Truly Marvellous.

"Cyprien Soucy, of Manchester, N. H., is in town, showing his new springing bicycle, which can be run without pneumatic tires. It is a marvellous invention, and is of great interest to bicyclists," says the Lawrence (Mass.) Eagle.

Recent Incorporations.

New York, N. Y.—Hydra Manufacturing Agency, with \$50,000 capital. Directors: Ernest J. Willis, John F. Hollingsworth and Charles D. Cole, all of New York.

Elgin, Ill.—Fauber Mfg. Co., with \$350,000 capital. Incorporators—W. H. Fauber, Frank A. Burgess and Henry W. Norton.

The Week's Exports.

Once more Great Britain heads the list of bicycle buyers, London and Southampton having last week taken the largest lots. Germany, the Low Countries and Italy also figure conspicuously, while Russia and Cuba are again mentioned.

Argentine Republic—Bicycle material, 1 case, \$105.

Arnheim—Bicycles and material, 2 cases, \$35.

British Guiana—Bicycles and material, 9 cases, \$417.

Bremen—Bicycle material, 11 cases, \$595.

British East Indies—Bicycles, 68 cases, \$800; bicycle material, 1 case, \$25.

Christiania—Bicycles, 7 cases, \$220; bicycle material, 1 case, \$50.

Copenhagen—Bicycle material, 6 cases, \$260; bicycles, 27 cases, \$365.

Cuba—Bicycle material, 5 cases, \$224.

Dutch West Indies—Bicycles and parts, 2 cases, \$80.

French West Indies—Bicycle material, 2 cases, \$67.

Genoa—Bicycles, 2 cases, \$111.

Glasgow—Bicycle material, 6 cases, \$200; bicycles, 5 cases, \$150.

Hamburg—Bicycles, 7 cases, \$300; bicycle material, 22 cases, \$1,054.

Havre—Bicycle material, 21 cases, \$1,750; bicycles, 136 cases, \$1,995.

London—Bicycles, 286 cases, \$3,698; bicycle material, 35 cases, \$1,455.

Liverpool—Bicycles, 78 cases, \$1,673.

Milan—Bicycle material, 10 cases, \$638.

Portuguese Possessions in Africa—Bicycles, 1 case, \$143.

Rotterdam—Bicycles, 2 cases, \$117; bicycle material, 29 cases, \$1,606.

Southampton—Bicycle material, 101 cases, \$3,582.

St. Petersburg—Bicycles, 1 case, \$42.

Trin—Bicycles, 62 cases, \$2,030.

Uruguay—Bicycles, 2 cases, \$75.

Once a Cyclist, now a Swimmer.

Few people who read of the attempt made last week by the Englishman Holbein to duplicate Captain Webb's feat of swimming across the English Channel will place him with the famous cycle-record breaker of the early nineties. Yet six or eight years ago Montague A. Holbein's name was famous throughout the cycling world. He was essentially a rider against the clock, and the road was his favorite stamping ground. In 24-hour rides especially he was at his best, and many meritorious performances stood to his credit. He was also one of the most unlucky men alive, almost rivalling Platt Betts in this respect. It was after several bad accidents that he gave up the cycle and took to swimming. For two or three years he has been preparing for his across-the-Channel feat, and last summer he did some swimming preparatory to making the attempt.

"How to Drive a Motorcycle." See "Motorcycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York. ***

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., Thursday, September 5, 1901.

No. 23

SHELBY'S STATEMENT

Facts and Figures Brought out by its Transfer—W. S. Miller Made President.

The Shelby Steel Tube Co. is now a formal possession of the giant United States Steel Corporation, but it retains its individuality, and no radical changes are likely.

To date the only visible change that has been effected is the elevation of W. S. Miller from the treasurership to the presidency of the Shelby Co., following the retirement of C. T. Boynton from the latter office. Mr. Miller is the son of W. E. Miller, who himself was once president, and who is now chairman of the Shelby executive committee. W. S. Miller is a close personal friend of President Schwab of the steel corporation, and, like the latter, is a young man, being well under forty.

In the consummation of the deal the United States Steel Corporation made application to the New York Stock Exchange, which throws some additional and authoritative light on the terms of the sale and on the condition of the Shelby interests.

The application seeks to arrange for the listing of \$1,012,200 additional preferred stock and \$1,201,900 of common stock, and shows that there are to be exchanged one share of United States Steel Corporation preferred stock for two and two-third shares of Shelby Steel Tube Co. preferred stock and one share of United States Steel Corporation common stock for four shares of Shelby Steel Tube Co. common stock. The capital stock of the Shelby Steel Tube Co. consists of 50,000 shares of preferred stock and 81,515 shares of common stock. In exchange for these there are to be issued preferred and common stock of the United States Steel Corporation at the rates above mentioned, viz.: For 50,000 shares of Shelby Steel Tube Co. preferred stock there are to be issued 18,750 shares of United States Steel Corporation preferred stock; for 81,515 shares of Shelby Steel Tube Co. common stock there are to be issued 20,378 shares of United States Steel Corporation common stock.

There have been already delivered for exchange 26,994 shares of Shelby Steel Tube Co. preferred stock and 48,079 shares of Shelby Steel Tube Co. common stock, for

which there have been issued and delivered 10,122 shares of United States Steel Corporation preferred stock and 12,019 shares of United States Steel Corporation common stock.

The company has no outstanding bonds, or mortgages or liens upon any of the property.

The following is the balance sheet as appeared from the books of the company on April 1, 1901:

ASSETS.		
Inventory: Supplies.....	\$131,166.02	
Steel	93,556.78	
Finished product.....	683,669.73	
		\$908,392.53
Cash	\$148,386.47	
Accounts receivable.....	264,245.00	
Notes receivable.....	46,160.60	
		458,792.07
Total quick assets.....		\$1,367,184.60
Permanent assets:		
Real estate.....	\$2,525.12	
Buildings	17,183.76	
Machinery and equipment.....	156,387.15	
Tool account.....	10,952.40	
Furniture and fixtures.....	2,128.36	
Horses and wagons.....	285.00	
New York warehouse.....	211.82	
Construction and improvement.....	60,829.34	
Original purchase.....	12,355,559.80	
		12,606,062.75
Total assets.....		\$13,973,247.35
LIABILITIES.		
Accounts payable.....	\$138,975.46	
Notes payable.....	300,000.00	
Fire loss.....	100,744.97	
Common stock.....	8,151,500.00	
Preferred stock.....	5,000,000.00	
Surplus account at February 1, 1901.....	173,847.29	
Surplus for two months.....	108,179.63	
Total liabilities.....		\$13,973,247.35

The Exchange's Committee on Stock List has directed that the above mentioned \$1,012,200 additional preferred stock and \$1,201,900 additional common stock be added to the amount now on list, making the total amount of U. S. Steel preferred stock listed to date \$509,498,500 and of common stock \$507,675,300. The committee has further directed that there be added to the list from time to time \$862,800 additional preferred stock and \$835,900 additional common stock, on official notification that the same has been issued in exchange respectively for preferred and common shares of the Shelby Steel Tube Co., making the total amount authorized to be listed under this and previous applications \$510,361,300 preferred stock and \$508,511,200 common stock.

ALMOST ALADDINLIKE

Tradesmen who Rightly Rubbed the Solar Lamp Receive Rich Returns.

Mark Mitchell, Rocky River, Ohio, has been declared the winner of the steam automobile offered by the Badger Brass Mfg. Co. as the first prize for the dealer selling the

greatest number of Solar gas lamps during the season of 1901. The award was based on population. Rocky River having 1,319 inhabitants, and Mitchell, having sold 513 Solars, was a comparatively easy winner. The second prize, a motor tricycle, was won by R. J. Hughes, Wahpeton, N. D. (2,228 inhabitants), who disposed of 596 lamps; the third, a motor bicycle, was captured by Elbert Toppen, Oyster Bay, N. Y. (population 1,750), who placed 50 sales to his credit.

Of the awards to jobbers, M. Rosenthal, Bound Brook, N. J. (population 2,622), with 72 sales, won the \$100 worth of merchandise. The other three fell to the Stamford (Conn.) Rubber Co., population 15,997, sales 406 lamps; George P. Watson, Weedsport, N. Y., 1,525—35, and George A. Fisher, Elizabethport, Pa., 1,473—33.

GAINS IN JULY

Improvement in Export Trade Continues—
Sensational Increase in China.

Excepting Germany, where the loss was not particularly large, the American bicycle during the month of July made a substantial and welcome advance not only in the United Kingdom, but in all of the European countries as well.

The increase amounted to nearly \$40,000 by comparison with the record of July, 1900, and, following the substantial gain in June, is particularly gratifying; it seems to indicate that the renewed strength of the foreign demand will be sustained, and that it is not in the nature of a spasmodic spurt. The increases in the United Kingdom, France and Australia are particularly noteworthy, and are large enough to bring the totals for the seven months ended with July to proportions that promise that the record for the year will at least equal the record for the twelve months of 1900.

While these increases are noteworthy, the most remarkable feature of the month's statistics, and indeed of the entire year, is the astounding jump in the exports to China. The gain of nearly \$30,000, which nearly doubles the aggregate shipments of the seven previous months, is more than significant. Of course, it is the outgrowth of the military occupation of the empire; but it is fair to parallel China with the Philippines and to accept the increase as a sign of the long-promised awakening of the Chinese. If the signs hold true, China, with its hundreds of millions, should prove one of the most profitable markets of the future, and one that should leave the Philippines in the far distance.

The record in detail follows:

Articles and countries.	July		Seven months ending July—		
	1900. Values.	1901. Values.	1899. Values.	1900. Values.	1901. Values.
United Kingdom.....	\$25,396	\$37,140	\$578,518	\$348,223	\$354,196
France	7,202	23,030	386,693	165,607	162,291
Germany	14,608	13,305	705,515	303,715	160,866
Other Europe.....	20,539	25,124	775,371	560,009	399,201
British North America.....	13,182	13,065	490,355	325,910	260,046
Central American States and British					
Honduras	101	480	3,414	786	3,613
Mexico	1,878	1,381	29,740	9,912	14,099
Santo Domingo.....	1	258	298	128	508
Cuba	1,870	1,087	32,476	61,564	6,476
Porto Rico*.....			1,598	1,461	
Other West Indies and Bermuda.....	3,387	3,234	40,408	27,817	30,114
Argentina	4,696	245	174,747	59,994	4,502
Brazil	931	392	19,498	13,512	4,345
Colombia	58	174	4,951	3,297	500
Other South America.....	2,394	1,639	34,545	27,501	17,680
Chinese Empire.....	1,914	28,849	13,082	16,294	41,991
British East Indies.....	4,454	4,834	68,139	37,393	37,307
Hong-Kong	953	28	5,690	4,525	2,353
Japan	25,422	19,163	45,870	160,268	160,587
British Australasia.....	17,572	20,484	140,737	132,512	115,630
Hawaii*			29,784	32,473	
Philippine Islands.....	6,236	1,467	958	28,930	24,892
Other Asia and Oceania.....	3,919	3,636	27,718	18,396	13,730
Africa	9,657	6,181	123,674	27,799	46,780
Other countries.....	40	19	254	317	184
Totals	\$166,410	\$205,215	\$3,734,033	\$2,368,343	\$1,861,891

*No longer included in statistics.

Effect of Postage on Exports.

Failure to fully prepay postage on their foreign correspondence and printed matter seems a trait common to American merchants—so common, indeed, that importers have been known to refuse such matter addressed to them. As exporters in the older countries appear to be more observing of such requirements, "short postage" stands as one of the little things that often serve to injure American interests abroad. Dealing with the subject, and showing the difference between the American and the European way, a correspondent in Buenos Ayres writes:

"Kindly urge American manufacturers looking for export trade to stamp properly their foreign mail. It is a disgrace to us Americans to see the show of ignorance exhibited at home by our countrymen about foreign countries and foreign habits, and I am wondering if, up to date, geography is taught in our colleges and schools at all.

"For the last two years I have not spent a cent to pay stamp taxes caused by my European correspondents, but I have spent dollars and dollars for fines on my mail from the United States."

Quotations for South Africa.

"Allow me to suggest to the hundreds of our manufacturers who do not care to visit South Africa, and must therefore send catalogues, not to print prices in the same, for the printed prices are not, merchants state, high enough to cover, in all cases, expenses connected with the receipt and selling of the goods," writes Consul-General Stowe from Cape Town. "Naming net prices would be better, and then a distinction must be made between the regular dealer and the wholesaler, for the latter must be protected."

The Wood Rim Co., formerly located at Winona, Minn., has removed to La Crosse, Wis., where better shipping facilities are had.

THE GERMAN TRADE

Its Record of Imports and Exports—Where
They Come From and go to.

During the four years 1897, 1898, 1899 and 1900 German imports of bicycles amounted to 546, 802, 513 and 385 tons, respectively, with a value estimated at 7,000,000, 6,300,000, 4,200,000 and 3,200,000 marks (\$1,666,000, \$1,499,400, \$999,600 and \$761,600).

The exports during these four years amounted to 600, 1,062, 1,519 and 1,566 tons, with a value of 9,900,000, 12,600,000, 11,700,000 and 11,300,000 marks (\$2,356,200, \$2,998,800, \$2,784,600 and \$2,689,400).

It is claimed that the above figures refer only to the metal parts of the bicycles, and that to the amount of imports should be added 100 tons for imported tires and saddles, worth 365,000 marks (\$86,870). The imports came chiefly from the United States, viz., 224, 462, 190 and 122 tons; from Great Britain, 106, 75, 36 and 35 tons; from France, 79, 90, 91 and 54 tons; and Austria-Hungary, 72, 82, 75 and 68 tons, respectively.

The exports were shipped chiefly to Sweden—90, 244, 142 and 147 tons; Russia (including Finland), 91, 159, 147 and 131 tons; Denmark, 78, 117, 128 and 159 tons; Austria-Hungary, 75, 467, 360 and 237 tons; Switzerland, 77, 142, 162 and 147 tons.

The German import duty is 24 marks (\$5.71) per 100 kilograms (220.46 pounds). In other countries the duty is as follows: Belgium, 12 per cent; Denmark, 10 per cent; France, 220 francs (\$42.46) per 100 kilograms; Italy, 80 francs (\$15.44) per 100 kilograms; Norway, 33.75 marks (\$8.03) each, or 28.08 marks (\$6.68) per 100 kilograms, if in part; Sweden, 20.08 marks (\$6.68) each; Austria-Hungary, 25 florins (\$10.15) each; Rumania, 8 francs (\$1.54) per 100 kilograms; Russia, 38.96 marks (\$9.27) each; Switzerland, 70 francs (\$13.51) per 100 kilograms, and the United States, 45 per cent. The German duty is less than that of other countries, except England, which has no duty on bicycles.

The imports from the United States were only 122 tons in 1900, and to Belgium Germany exported in 1900 fully 59 tons more than were imported from that country. With France the relation is the same, and England has received four times as much as she ever sent to Germany. On account of the high duties, says the German source from which these statistics are extracted, an export trade to the United States is not possible, while the Americans can, unhindered, overstock the German market.

Branch Stores Better.

It is asserted that next season will see an extension of the depot, or branch store, system in the British trade. A number of concerns that abolished it during the past few years are ready to return to it, believing that it is in the end the better policy.

FROM ACROSS THE SEA

News, Comment and Suggestion Regarding
Motocycles that is of General Interest.

London, Aug. 19.—This week it is rumored that there is about to be a drop in the prices of certain motors, parts and accessories, and, indeed, in some cases the event has actually happened. For instance, the United Motor Industries, Ltd., are selling De Dion sparking plugs at considerably less than was asked last week, while the same firm have a new plug, the price of which to the trade is only 30 cents. Nor does this mean that there is any falling off in the demand for motors.

On the other hand, it is an indication that the popularity of motoring is now increasing to such an extent that the manufacturers can afford to put parts and accessories through the factories in large quantities, which naturally means that the prices, both wholesale and retail, can be lowered without reducing the profit on the capital invested. In addition to this, other firms are coming into the business, and several of the electrical instrument companies are making and selling sparking plugs and similar parts for the motorcycle trade. Some of these new things are very bad, but this is mainly owing to the lack of experience on the part of the makers.

The Motor Mfg. Co., Ltd., are doing well with the Werner motor bicycle; when I called at their London depot this week I found that a large consignment of these machines had just come to hand, but none were for sale, orders for all that arrived having been booked ahead, and there were not enough to go around at that. This certainly speaks well for the popularity of the motor bicycle, and holds abundant promise of the better times to come.

There can be no doubt that the comparatively great reliability of the motorcycle when compared with even the most simple voiturette is greatly in favor of the former. This has been demonstrated by a trip undertaken by a friend last week. I always endeavor to obtain statistics on the reliability of machines from those entirely unconnected with the trade, but with a sufficient engineering knowledge to insure that no accident or breakdown should be caused by any actual neglect on the part of the rider of the machine. My friend fulfilled these conditions exactly, so I asked him for his experience of a week's trip of 800 miles, to the West of England. It was most satisfactory. He had no trouble at all from the beginning to the end, except when his dry battery, an old one, ran down. Even then there was not much inconvenience caused, as he was able to get along to the next large town by putting up with occasional misfiring. He then obtained

a new battery, and at a fairly reasonable rate—namely, \$5—considering that he was very far from any place where the motor industry is a recognized business. Another interesting feature was that he employed single-tube tires for the journey, having had quite enough of the double-tube pattern during a trip to the South Coast last spring. The single tubes gave no trouble throughout, nor did the tires require inflating. Moreover, they are remarkably free from cuts or damage of any kind, and look almost as good as new. I want to see how a set would wear on a voiturette, especially for the driving wheels, the tires of which always give most trouble.

Some experiments have recently been made in relation to the passing of the electric spark under various pressures. We all know that very often a spark which appears to be all that can be desired outside the cylinder utterly fails to ignite the charge when the plug is in place. Many persons put this down to some twisting of the wires during the replacing of the plug, but as a matter of fact it depends in a great measure upon the compression within the cylinder. It is a good plan to set the points of the wires as close together as possible to insure a proper spark, because the closer their proximity the greater will be the ease with which the current can pass. This is often peculiarly noticeable after thoroughly grinding in the valves of a motor and cleaning the rings. If the piston be well oiled after this has been done it will be found that the compression is very great, and that consequently the motor will not start, owing to the failure of the spark to ignite the gases. When the stroke is half finished sometimes a half ignition—if the term be permissible—will take place. Now open the compression tap slightly, so as to give a moderate compression only, and the motor will start. So soon as its speed is attained the tap can be closed, and the compression will be valuable in helping the engine when the latter is running fast.

More accidents are certain to follow the cry for more powerful motors. It is commonly said by many of the adherents of the motor bicycle that the 1½-horsepower motors usually fitted are not nearly powerful enough. They want motors of at least 2¼ horsepower, while not a few are suggesting 2¾ horsepower as even better. Now, at one time we were content with 1¾ horsepower on motor tricycles, and even now 2¼ horsepower is the common thing. Surely the motor bicycle should not need a 2¾-horsepower motor in the face of this! The machine is very much lighter, and, in addition, only makes one track.

It is just possible that a great improvement in the matter of stability may be brought about by greatly increasing the wheel base, but this increase must be one which will at once be apparent. It is no good merely adding an inch or so to the present measurement. A tandem bicycle will steer well in

grease, so why not increase the length of the motor bicycle in proportion to the weight which has to be carried? The slide-slipping business is the worst enemy to the progress of the motor bicycle in popular favor, and when the wet weather sets in we shall hear of a great many accidents from this cause.

Dan Albone, of Biggleswade, who, it will be remembered, was the first maker to construct a ladies' safety, has just brought out a motor bicycle, in which the motor is placed centrally and very low down. The machine is also of fair length, although I think that in this respect it might be increased with considerable advantage. The machine looks well, and there are already several orders in hand for similar mounts. Lord Alwyne Compton was one of the first to place an order, and since then the Lord Advocate of Scotland, the Right Hon. A. Graham Murray, M. P., has had a ride on the trial machine, and placed an order on the strength of his experiences. He is a most ardent cyclist and one of the best steerers of a triplet I have even seen. Mr. George Kemp, M. P., who not so long since rode an exciting road race with Lord Compton in order to prove that a heavy bicycle is better against the wind than a light machine, is also smitten with the motor bicycle fever, and his mount is also to be one of Albone's Ivels.

Two Veterans Join Hands.

Charles McCutchen, formerly with the American Saddle Co., and Thomas J. Wetzel, who was connected with the Kirkpatrick Saddle Co., have joined forces and will open offices in Chicago as manufacturers' agents. They have a number of desirable lines of goods about closed for, and are looking for others. Their temporary address is care of the Kirkpatrick Saddle Co., Springfield, O.

To Test Their "Endurance."

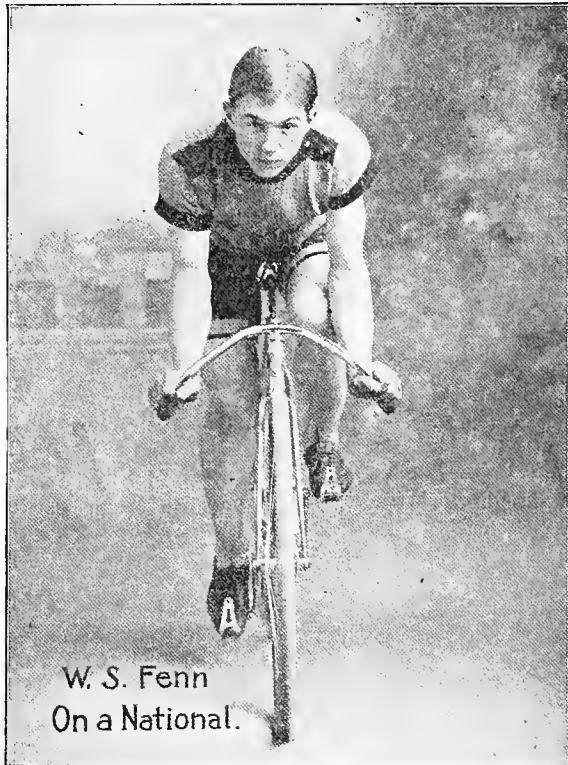
The Hendee Mfg. Co., the Waltham Mfg. Co., the E. R. Thomas Motor Co. and the Stratton Motor Bicycle Co. have each entered a motor bicycle in the motorcycle class of the Automobile Club's New York-Buffalo endurance test which starts on Monday. As the first official and pretentious test of the machines the results cannot fail of keen interest.

Americans Abroad.

H. H. Fulton, president, and A. P. Morrow, superintendent, of the Eclipse Mfg. Co., are reported in London after a visit to Paris. They told the reporters that they were "holiday making," but one of the papers adds that it is "the nearest approach to determined business we have ever seen."

Wood Rim Factory in France.

The American Wood Rim Co. has completed arrangements for the establishment of a plant in Paris. French capital is interested in the venture which will operate—as the Cie Franco-Americaine des Jantes en Bois.



W. S. Fenn
On a National.

AMATEUR CHAMPION 1900

THAT "little blue wheel" TAKES THEM TO THE FRONT

July 21st Fenn at Vaillsburg, N. J., beat Gascoyne the English champion in a five mile pursuit race in a little over 3 miles.

July 22nd, Fenn at Hartford, Conn., did it again on his "little blue wheel" in a little over 2 2-3 miles. :: :: :: ::

In commenting on the latter race the Hartford Courant of July 23rd, says:—"Gascoyne has recently come across the water and has a high reputation for speed and endurance. He has never been defeated in an unpaced race in England." :: ::

NATIONAL RIDERS ARE WINNERS

WRITE US ABOUT "the little blue wheel"

NATIONAL CYCLE MFG. CO.
BAY CITY, :: :: :: MICHIGAN

13	F	I	S	K	S	13
F	<p>There Was Never a Time When the Fame of the Fisk</p> <p>stood out more prominently. There was never a year when the Fisk reputation was more brilliantly sustained or when the merits of Fisk tires met with greater appreciation.</p> <p>There Are 13 Of Them</p> <p>and he is unpleasable who cannot find what he wants in the line. Thread—semi-thread—close-woven—for bicycle—for tandem—for motorcycle—for carriage—for automobile—for sulky—for any form of vehicle for which high class tires are required—those tires are included in Fisk's 13.</p> <p>Not to know them and each of them—not to have the catalog—not to be familiar with the quotations is to be lacking in tire knowledge that every wise merchant should possess.</p>					F
I						I
S						S
K						K
S						S
13	<p>BRANCHES: SPRINGFIELD; NEW YORK, 99 Chambers St.; SYRACUSE; BUFFALO; DETROIT; CHICAGO, 54 State St.; SAN FRANCISCO, The Phil B. Bekeart Co., 114 Second St.</p> <p>REPAIR DEPOTS: 105 Reade St., NEW YORK, N. Y.; 168 Oliver St., BOSTON, MASS.; 1015 Arch St., PHILADELPHIA, PA.</p> <p>FISK RUBBER CO., CHICOPEE FALLS, MASS.</p>					13

THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
"The Wheel" and the "American Cyclist."

Published Every Thursday
By

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General Agents: The American News Co., New York City and its branches.

Change of advertisements is not guaranteed unless copy therefor is in hand on SATURDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should

Address us at P. O. Box 649.

NEW YORK, SEPTEMBER 5, 1901.

Service Appreciated.

The service the *Bicycling World* performed in exposing the methods and wares with which the Manhattan Storage Co., of Philadelphia, were attempting to deceive the people of New York and New Jersey has met with a gratifying measure of appreciation and commendation.

The injury that was being done the reputable trade by the fraudulent ads. and spurious wares of the Philadelphia "invaders" was so plain that the check we placed on the evil came none too soon. The tricksters are now singing small and proceeding with extreme caution, but we have not lost sight of them, and any backsliding on their part will be followed by instant action of a decisive character. We believe it one of the missions of the trade paper to thus protect the industry which it represents, and while there are people who fancy that such service is in the nature of what is popularly termed a "roast," and who deem it, there are also those who are able to see and appreciate the real objects and benefits that

are served. Of this class is H. S. Brandt, a progressive dealer of Norristown, Penn., whose commendation will serve as an example of the many that have reached us. He writes:

"I note with great pleasure your exposé of the Manhattan Storage Co. Shake! If more of our cycling and other papers would help in this good work it would soon be accomplished. But, alas! too often an ad. (frequently taken out in trade) prevents an honest showdown of their queer methods. Accept my sincere congratulations on your pluck. I hope others may copy your methods until all unworthy concerns are weeded out."

We promise no abatement of the good work, whether the rascals attempt to work off old stock as new, whether they circulate spurious testimonials, or whether, disguised as journalists, they employ methods that are a disgrace to the craft and to honorable men generally. We have already had occasion to deal with each of the three types of rascal, and we mean that there shall be no let-up or lack of vigilance.

Coaster-Brakes vs. Pneumatic Tires.

To give credit where credit is due, it is but fair to say that the ad. of the Morrow coaster-brake in this issue is fraught with suggestion that carries with it a train of interesting and profitable argument and thought.

That the average dealer is not making the most of the opportunity afforded by the coaster-brake is hardly disputable. Proof of the statement is to be found on any route or road frequented by cyclists. It will be found that while the number of bicycles fitted with coaster-brakes is large, the number without them is also large as to excite the comment of any well-informed observer. Each of these coaster-brakeless bicycles is evidence that dealers have not fully or properly cultivated their local fields. The assertion is a broad one, but casual inquiry in cycling company almost anywhere at almost any time will develop that comparatively few riders have been directly approached or been urged by the tongue or the pen of the local dealer to investigate, try, buy or to otherwise become interested in coaster-brakes. It is fairly safe to say that the most the average dealer has ever done to interest his public in the subject has been to carry the line, "Coaster-Brakes Fitted" in his advertisement in his local paper. It is as safe to say that the great majority of sales have resulted from the advertising of the manufacturers, and from that endless chain of month-to-month advertising of pleased and satisfied users of the device.

The Morrow statement that wherever and whenever a dealer may see a coaster-brakeless bicycle it is his business to seek out the owner and talk or write to him of the glories of coaster-brakes does not state the situation too strongly. It is sound commercial logic which dealers everywhere may well take to themselves. There are hundreds of thousands of such bicycles in use. This means that there are just that many possible—aye, probable—purchasers in sight. While this condition exists there is small warrant for either the "nothing doing" or the "do nothing" excuse.

The Morrow contention that there is no more reason why all bicycles should not be fitted with coaster-brakes than that they should be equipped with pneumatic tires is a bold stand. Standing alone and without explanation it would appear too bold, but the argument that is brought to its support is so strong that the contention is not to be gainsaid—we refer to the argument that the coaster-brake adds as much as the air tire to the rider's pleasure and "infinitely more to his personal safety and to the safety of the public."

The belief is well warranted. The dealers who take that stand and who preach that doctrine and "fight it out on that line" until the last bicycle with a fixed gear is converted are the men who will win the dollars that now pass their doors daily with no effort or insufficient effort on their part to gather them in.

This placing of the coaster-brake on the same par with pneumatic tires carries one resolutely to the questioning suggestion, Who will be the first manufacturer to adopt the coaster-brake as a part of the standard equipment of his bicycles?

Perhaps the question is in advance of the times; but it loses none of its interest and suggestfulness because of the fact.

China as a Customer.

While the increase of our foreign trade in bicycles that has marked the months of June and July is unusual enough to excite gratifying remark, since the unexpected development of the Philippines as a market nothing in the matter of exports has been half so remarkable as the great jump in the shipments of American bicycles to the Chinese Empire during the month of July.

In the light of the past, the increase is robbed of an iota of surprise, the wars in Cuba and in the Philippines having demonstrated that the bicycle follows close after the bullet. When the trouble in China was

at its height, and having Cuba and the Philippines in mind, we paraphrased the old saw, "First the missionary, next the soldier, then the merchant" by wording it "First the Bible, next the bullet, then the bicycle," and suggested that the military occupation of the Yellow Empire might lead to that condition and finally open that country as a market for bicycles.

The great increase from \$1,900 in July, 1900, to \$29,000 in July, 1901, is significant; it indicates that a wedge of some sort has been driven in, but until it be found that the demand be sustained and the opening made larger it will not do to rouse false hopes or to felicitate ourselves too roundly.

The increase is, however, quite sufficient to make China a centre of renewed interest on the part of American cycle exporters, and to keep their attention riveted in that direction until the hope inspired by July's record shall have been boosted or blasted by the exports of the next few months.

For years we have held that the Far East would prove the market of the future, and our investigations and observations during recent months have but served to strengthen our faith and to convince us that the day of reaping is close at hand.

All Asia, which includes China, is possessed of hundreds of millions of people, and once the cycling light fully breaks on them the American cycle trade should reach a rich reward.

City and Country.

It has been often remarked that the big cities caught the cycling "fever" sooner and recovered from it quicker than the remainder of the country.

The truth of this is evident to any one who gives any attention to the matter. The urban dweller has much to occupy his time. His home and office are widely separated, in both distance and time; and when the former is reached, at the end of the day, it requires some effort for him to bring himself to the point of changing his clothing, getting out his bicycle and taking a ride. When he was an enthusiast he never hesitated to make this effort, but, the edge of his appetite taken off, the matter of a ride assumed a different complexion.

Consequently the accustomed rides are taken at much less frequent intervals, or even omitted altogether.

The time was, of course, when difficulties placed in his way would have but whetted his zeal for cycling. This time may come again, but as far as this phase of the sport

is concerned cycling is passing through the doldrums, and enthusiasm is pretty certain to be at a low level for some little time to come.

But any one who questions the popularity of the bicycle, even as a pleasure vehicle, has but to go into the towns and villages, the seaside and country resorts.

At such places they are, while not as thick as leaves in Vallambrosa, still very numerous. They are seen everywhere, on the streets and roads, at the bathing beaches and wherever else amusement seekers are found. Not in such overwhelming numbers as of yore, of course—that no one would be so rash as to assert—but still by dozens and scores.

No Boom in Motor Bicycles!

Some of the English cycling journals are holding up for the benefit of their home trade a supposed reflection of what they term "the boom in motor bicycles in America." It will be well if they undeceive themselves and all others concerned.

No boom of the sort exists in this country, and nothing of the sort is desired. "Boom" suggests sudden inflation, and, having had one experience of the sort—and of the unpleasant aftermath—the American cycle trade scarcely hankers for a second dose.

What does exist is a healthy and widespread interest in motor bicycles and a gradually increasing demand and supply, which do not, however, in any way assume the appearance or proportions of a boom.

A boom—a sudden and unprecedented demand—would be the very worst thing that the "automatic bicycle" could experience at this time. It is so little understood—appreciation of its principles and operation, of its care and repair, is so limited that an unexpected demand that would cause another rush of fortune-seeking fools where angels fear to tread, and bring with it its concomitant of unknown, untried and indifferent motors, and of users and repairers of them, would prove in the nature of a blight to the interests of the motor bicycle, and damage irreparably that which is now of such glorious promise.

No boom of the sort is wanted. Use the word sparingly.

If the "seal of society" was all that the motorcycle required to obtain standing in so-called "fashionable circles" and to cause the members thereof to purchase, the public demonstration of interest and approbation displayed at the Vanderbilt meet at Newport

was sufficient to declare that the motorcycle is now "signed, sealed and delivered" to those who "set the fashions" in their respective habits.

Darius Green and the equally famous but unnamed genius who sought to lift himself by his bootstraps have both been outdone by an inventor from the land of kail and oatmeal.

This bonny Scot, who hails from Dundee, has patented an attachment to increase speed, consisting practically of two rubber bands attached to the saddle and the pedals. You press the pedal down and the bands pull it up—thereby saving power! But nothing is said of the extra power required on the down pressure.

The cycle agent, who has hitherto done a fair trade in the hiring out business, is now rather worried over the increase in the popularity of the motor cycle. He is not infrequently asked his terms for the hire of a motor tricycle, and even a motor bicycle. There is, however, so much risk attached to the letting out of these machines to novices that few agents have undertaken to do so, and more than one of those who have been courageous enough to try the experiment have bitterly repented their decision and now are letting out motors no more.

It is generally recognized that close buying is one of the essentials to success in manufacturing or in marketing goods. Those who disregard this principle and buy at higher figures than their competitors are not, in these days of earnest strife for business, likely to continue long in the field. They certainly cannot take their place among the live and enterprising houses that are making themselves a position of recognized importance in the trade.

Is it abominably bad roads or exceptionally poor tires that English riders have to contend with? One is impelled to ask this question after reading in *Cycling* that "it has been quite a familiar sight recently to see rows of cyclists at the wayside busily repairing, and this is not by any means an exaggerated statement."

Enormous sprocket wheels have so completely disappeared that many riders have forgotten that they were ever used. We saw one of them the other day, and it attracted as much attention as an eighteen or twenty tooth one would have done a few years ago.

RACING

McFarland's cup of joy was filled to the brim at Madison Square Garden on the evening of September 2, when he defeated Major Taylor in two straight heats. He has a particular antipathy to the "nigger" which never fails to show itself on the slightest provocation. His feelings, therefore, when he defeated Taylor in the first heat of one mile in 1:38 3-5 and in the second heat of two miles in 3:17 1-5 may be easily imagined. In

It may now be said that the motorcycle has made its formal debut in society!

The more or less interesting event occurred at Newport on Friday last, on the occasion of the Vanderbilt automobile race meeting

Owing to a misunderstanding as to the place of finish, the first bunch of riders ran into a crowd of spectators and three of them were badly injured. The attendant excitement and confusion resulted in many conflicting claims, but the officials finally placed C. Perden, Brooklyn (3 m) first and B. Dammann, New York (1 m) second. Time, 1:05:47 2-5. The time prize went to Edwin Forrest, K. C. W., in 1:02:48 2-5. Eighty-eight men started.

In the absence of his chief rivals, Kramer and Lawson, Taylor had comparatively little

ron of motorcycles by contributing the cups which constituted the prizes for the three mile race "for tricycles and two wheeled vehicles," as the motorcycle event was styled on the programme. The entry fee was \$25, but

an off day and Stinson underwent the change of form he is so apt to have; consequently the men finished in that order at Manhattan Beach, New York, on August 31, in an hour motor-paced race. Stinson took the lead and held it for a considerable time, when Elkes went to the front and stayed there. Walthour also passed the Cambridge man, and gained a lead that was needed during the last few miles. Stinson recovered himself and rode fast, gaining rapidly on Walthour. At the end of the hour, however, Elkes had a lead of 4-3 laps over Walthour, with

minutes and forty seconds. Holley was second. Scott did not finish. The photograph shows the men lining up for the start. Incidentally, it shows the Vanderbilt interest in the affair, the young man in white duck



at Aquidneck Park, an indifferent dirt track which was hastily worked into some sort of condition after the authorities denied the racers the privilege of using the road. The "smart set," in its best attire, looked on and Mrs. John R. Drexel and W. K. Vanderbilt, Jr., acted as the particular patroness and pat-

a four-cornered half mile match between Kramer, Lawson, Cooper and Fisher the men finished in that order. The final between Kramer and Lawson, ridden in 1:11 4-5, was a hair raiser, the former winning by inches. Henri Fournier rode an exhibition mile on a motor bicycle in 1:34 2-5. Fournier, by the way, is being generally touted as the man who introduced motor bicycles in this country. But he did nothing of the sort. He used a tandem and tricycle when here in 1898. At that time motor bicycles were practically unknown.

The twenty-five-mile Cycle Path handicap, which is run annually on Labor Day by the Associated Cycling Clubs of Long Island, and which shares honors with the Irvington-Millburn in the East, ended in a general mixup.

as a race the event caused little excitement and neck-stretching. Kenneth Skinner, of Boston, on an eight horsepower tricycle simply romped away from the other two competitors, G. M. Holley, Bradford, Pa., and U. G. Scott, Newport, R. I., on motor bicycles, completing the three miles in five

trouble in winning the half-mile open, run a la championship style, at Vailsburg on Labor Day. Kimble gave him a close race in the semi-final, but he outgeneralled Fisher in the final and won easily. Three-quarters of a lap from home the Iver Johnson rider "jumped" his rival and was lengths away before his rival got started. Three heats were necessary in the tandem pacing machine race; Schulz and Bennett won the first, and King and Hunter won the second and third. The first, a quarter mile, was run in 21 1-5 seconds; the next, 5 miles, in 7:17 2-5, and the deciding one, 2 miles, in 2:57 3-5. Billington won the half-mile open from scratch in 0:59 3-5, and Rutz won the 2-mile handicap.

Elkes was himself again, Walthour had

trousers in the foreground, being none other than W. K., Jr., himself.

Skinner, on his tricycle, also distinguished himself in the ten-mile event for winning vehicles by finishing second to young Vanderbilt, who drove his seventy horsepower carriage.

Stinson 1½ laps behind the Georgian. Elkes covered 38 1-3 miles in the hour—a track record.

With the advantage slightly in his favor, Elkes lost it and the race owing to a punctured tire in an hour paced race with Stinson at Charles River Park, Boston, on August 27. It was a seesaw game to the twenty-ninth mile, when Stinson saw his competitor's plight and went by with a rush. He thus assumed a winning lead, covering 38 miles 1,049 yards in the sixty minutes. Elkes was 1,019 yards to the bad. Stinson broke all standing-start records from six to fourteen miles. Hurley and Van Cott defeated Mettling and McConnell in a heat team race in two straight heats.

(Continued on page 460.)

1-INCH FITTINGS

FOR FLUSH-JOINT FRAMES

Flush head sets with cap nut
Cluster with oval rear lugs
Hanger with oval rear lugs

OUTSIDE JOINT FITTINGS

FOR EXPORT BICYCLES

Electrically Welded Head Lugs
Seat Post Bracket with bolt and nut
Cotter Pin Hanger—square cranks

THE CROSBY COMPANY BUFFALO, N. Y.



The Missing Link
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A BICYCLE AND AN AUTOMOBILE

IS

THE RACYCLE

-SAVES 27% OF THE RIDERS STRENGTH.

A Racycle differs from a bicycle therefore its price is different.

THERE ARE NO CHEAP RACYCLES.

Send for Descriptive Novelties, Catalogues and Prices.

F.M. JONES, SACRAMENTO, CAL. PACIFIC COAST AGT.
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GEO. E. HANNAN, DENVER, COLORADO.

MIAMI CYCLE & MFG. CO.
MIDDLETOWN, O.

FOREIGN QUOTATIONS

Some Suggestions From a Competent Source—The German System.

Experience is said to be a dear teacher, and many American manufacturers and merchants are having this brought home to them.

To place one's self in another man's position and divine just what that man wants and give it to him is no easy matter. The worst of it is that a great many concerns that reach out for foreign trade make little attempt to do this. They have been told again and again of their shortcomings, and experience should have taught them a lot besides. But they are still very far from being adepts at the foreign trade game.

Touching on this failure to grasp the essential features of the business, General Manager Sanborn of the National Association of Manufacturers says:

"We have seen many cases where manufacturers have quoted prices very indiscriminately, and have sold single articles to unknown parties at the same price they were charged to the largest customers in a wholesale way, simply because they did not know the customer and quoted their best prices at the start.

"On the other hand, we have had brought to our attention many instances where large buyers have asked for quotations and have received in reply catalogues or circulars, with no quotations whatever. This is really a very common fault. We have known many cases where repeated requests from a prospective customer have brought nothing in reply but printed matter, with no information as to prices. It is hard to justify such a course as this, and yet, unfortunately, such occurrences are not infrequent.

"On general principles it is inadvisable to circulate generally and indiscriminately a catalogue containing net prices, for it frequently happens that such catalogues fall into the hands of small buyers, who are not entitled to lowest prices. We have on file in our office a large collection of catalogues issued by German manufacturers, which we gathered a year or two ago, and while nearly every catalogue contains prices, they are usually subject to discount, and in nearly every instance the manufacturer sent with the catalogue a private letter, in which the net prices were given, or else a sheet of discounts was inclosed.

"So far as we have had opportunity to observe from examination of a great many American catalogues the best practice in this country follows similar lines. Of course in a line of staple articles, which are sold in quantity, there is more necessity for very careful and discriminate quotation of prices than in the case of machinery or special articles which have but one price, and which are usually bought direct by the consumer.

"The first essential in quoting prices is to

know the customer, particularly when prices may be subject to discount according to quantity; and when a customer is unknown it is usually advisable to quote prices guardedly, giving general information to the intending purchaser, and at the same time bringing out such a reply as will indicate the position of the buyer and his right to command better prices. I believe as a rule the Germans are the most careful in quoting prices and submitting estimates. Some of them submit estimates which are models in the way of detailed information.

"In very many instances a foreigner who asks for quotations, especially on machinery, does not know himself exactly what he wants, and expects the manufacturer to assume certain conditions and to give information and prices based upon such a supposition. As a rule the American manufacturer replies to such an inquiry by saying



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

that he cannot give the prices until he knows all the particulars.

"The German manufacturer assumes certain conditions and bases his estimates and prices thereon. This gives the buyer something to consider and opens the way for getting at the exact base. I have in mind just now an estimate furnished by a German manufacturer of starch machinery to a purchaser in South America. The specifications were all very carefully drawn, and the detailed information about the plant, its dimensions, weights and capacity filled several pages, so that the man who received that estimate was able to figure exactly the cost of the plant, power required to operate it and what he could do with it when he had it.

"Similar inquiries which were addressed simultaneously to manufacturers in the United States brought in reply requests for detailed information, which the buyer was wholly unable to furnish, and long before the American manufacturers had begun to make up their figures the buyer was in possession of complete information from the German manufacturer."

WINDOW DISPLAY

The Testimony of a Merchant Who Appreciates its Full Worth.

The successful merchant must have good wares and he must let the people know that he has them. In these times the newspaper has become a powerful factor as a means of advertising, and yet, while it aids, it cannot replace the advertisement which comes from the proper display of goods in a show window. The sphere of each is different. Let the newspaper bring the people to your show windows, and let the show windows bring them as customers into your store, writes a hardwareman in whom the "shop-keeping instinct" is evidently keenly alive.

Many a prospective customer attracted by a clever newspaper advertisement has been repelled from the store of a merchant by a poor display of goods in his window. He has gone his way and said, "One cannot trust these newspapers any more"; the many fake promises which some unscrupulous dealers have made in the advertising columns increase the importance of the show windows and the necessity of showing in them the best you have, in the best way you can. It costs so little to be nice, and it goes so very, very far.

Every mercantile business has three drawing cards which, when held and played together, seldom fail of their expected successful results—the newspaper that brings the people to your windows, the window show that brings the people to your store, and the merchant's affability and welcome which keep them there and make customers of them. The window is invariably considered by the public to be the partial index of the store contents; and the better the display and the more elaborate this index the surer the results of its mission.

Good attractions draw better than poor ones. Who would not rather listen to a brilliant orator than to a poor one? Who would not rather see a magnificent work of art than a daub, or listen to a grand opera singer than to a cheap concert hall howler?

Your window should have the same consideration that you give to the employment of your help; it is your first silent salesman, and can give no offence except through your own fault.

It is hardly necessary to say that all goods, whether they find a ready sale or not, should be constantly kept in good order, because, no matter how old an article may be, if it is presentable it has a selling value and may be called for by some one sooner or later.

"Whatsoever is worth doing at all is worth doing well" is a general rule that has no exception. For the merchant to apply this rule with especial force to the proper display of his goods in his show windows, and to the orderly and careful keeping of stock in his store, is to swing himself onward in a successful career. But it means more than that. It is of greater significance than the individual success of any one man. It means more business, because a good display brings buyers, and buyers make business.

(Continued from page 457.)

Kramer suffered a setback in his progress toward the championship goal at New Haven, Conn., on August 27. Fenn and Freeman shut him out in a heat of the half mile, Fenn jumping away and pulling Freeman in ahead of the Pierce rider by inches. Then in their semi-final the two victors ran a dead heat, and in the run off Fenn on his "little blue wheel" got over the tape first. In the grand final Collett got the plum, defeating Fenn after a hard fight. Lawson won the ten-mile and the record for the distance, his time being 23.35 2-5, Cooper and Fenn being second and third respectively.

A sorrier spectacle than Taylor presented at Madison Square Garden, New York, on August 30, it would not be easy to imagine. Pitted, without practice behind pace apparently, against Michael in his best form, the contest was a most unequal one. But two heats were necessary, one and five miles, Michael winning both with ridiculous ease. Taylor lost his pace repeatedly, followed poorly, and in short rode like an amateur. The short races, amateur, were but fairly interesting.

Stinson suffered a reverse at the hands of his old rival, Nelson, at Worcester, Mass., on August 28. The event was a 20-mile race, motor paced, and the Orient rider led until the eighteenth mile. Nelson had made repeated efforts to pass until this point was reached, and a more sustained effort on his part was successful, Stinson losing his pace in the struggle to hold his advantage. Nelson increased the slight lead thus gained to a lap. Time, 31.08.

Fenn disposed of Lawson in the semi-finals of the half-mile championship at Hartford, Conn., on August 26, but in turn fell a victim to the superior speed of Kramer. The latter disposed of his rival without any very great trouble, although only a foot separated the men at the finish. Cooper maintained his winning streak by capturing the ten-mile open in fine style, his erstwhile team mate, McFarland, getting second, Kimble and Fenn being the other placed men. Time, 22.41 2-5.

Lawson's star was in the ascendant at Providence, R. I., on August 28. He shut out Taylor in a heat of the half-mile championship, and won from Kramer in the grand final. He started from the rear, got the lead and retained it to the finish. Cooper (20 yards) won the mile handicap, Kimble (30 yards) being second. Downing captured another 2.10 class race, time 2.25 2-5.

Michael against McFarland was the card at Revere Beach, Boston, on August 28, and the result was a foregone conclusion. The race was at 20 miles, motor paced, and Michael won easily. McFarland showed improved form, however, and compelled the

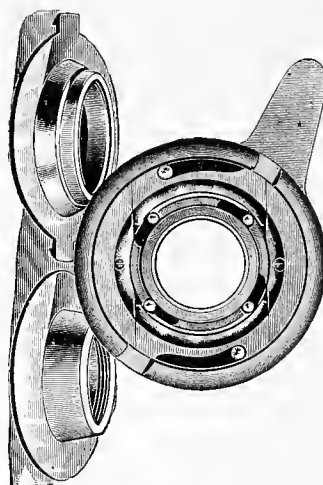
Welshman to ride a good race during the early part of the contest.

Accidents continue to trail McEachern. He was making things interesting for Champion in a twenty-five-mile race at Montreal on the 1st when his wheel went wrong, allowing the Frenchman to steal a lead of two laps, which he held to the finish, despite Mc-

Zimmerman Enters the Field.

Its price, appearance and principle and the people behind it seem to warrant the statement that the Zimmerman coaster-brake will prove a factor in the business. The device is the invention of John Zimmerman, of Syracuse, N. Y., and has been taken up and is being made and marketed by the Industrial Machine Co., of that city, who are makers of hardware specialties, with works at Phoenix, N. Y.

Simplicity is one of the chief claims made



for the Zimmerman; it contains but nine parts, and may be applied to any standard hub. To attach the brake the rear-wheel sprocket gear is removed from the hub and a collar having pockets to receive part of the balls is screwed on. A sprocket gear is placed on the collar which receives the remainder of the balls and makes a positive drive. When the rider stops, the sprocket gear receives the ball to permit coasting. Two wedges with inclines fit on the side of the sprocket gear. A stationary ring is fastened to the framework, and two rollers work up the inclines which force the wedges to the centre, thus expanding a friction plate against the lock nut, which operates the brake.

Eachern's gamest effort. Time, 40:05 4-5. Kent and Daly, of Boston, rode a motor tandem five miles in 7:01 4-5.

That erratic "in-and-out," Stinson, had an inning at Charles River Park, Boston, on Labor Day, when he rode three rings around Champion and five around Walthour, in a one hour race. Stinson covered thirty-nine miles (track record) and finished on a flat tire. Walthour was put out of the running by motor troubles.

Bowler and Maya won the six-days-eight-hours-per-day team race which finished at Revere Beach, Boston, on Labor Day, with a record of 970 miles, 7 laps. Moran and McLean were second and Pierce and McDuffie last. The race was decided in the final spurt. Each member of the teams rode four hours per day.

Johnny Nelson took another fall out of Moran at Revere Beach, Boston, on Labor Day, beating him by 1¼ miles and doing 375-16 miles in the hour. Moran cracked and lost his pace in the fourth mile.

Punctures and motor troubles helped Ben Munroe to a comparatively easy victory over McEachern at Providence on September 3. Distance, 25 miles; time,

The Retail Record. CHANGES.

Glens Falls, N. Y.—Miller Bros. succeed Empire Cycle and Auto Co.

Lawrence, Kan.—A. Boncourt succeeds Simpson & Boncourt, D. B. Simpson retiring.

Dunkirk, N. Y.—Lake City Cycle Works removed to 414 Central avenue.

Pulaski, Va.—J. W. Nowlin removed to Washington avenue.

Lynn, Mass.—Walter Porter removed to 29 Munroe street.

Natick, Mass.—The business of W. D. Parlin has been converted into a stock company, with a capital of \$40,000, and will hereafter be known as the W. D. Parlin Hardware Co.; W. D. Parlin is president and Lloyd Brown treasurer.

Westport, Conn.—F. W. Kemper, jr., removed to Wheeler Building.

NEW STORES.

Miami, Fla.—Clark & Carroll.

Alexandria, La.—Rollins & Canoe.

Greenville, Ala.—F. M. West, repairing.

Coffeyville, Kan.—J. C. Pinger, reopening.

Paw Paw, Mich.—Alvin Norwood.

Portsmouth, N. H.—W. F. and C. E. Woods.

Cause for Pride.

The E. R. Thomas Motor Co. is particularly proud of the performance of its Auto-Bi, which wound up the two weeks' bicycle and motorcycle racing held at the Pan-American, when seconds were clipped off the world's records for one and five miles. The old records were 2:23 1-5 for one mile and 7:10 4-5 for five miles. The new records are 1:22 1-5 and 7:05 4-5 respectively. The old records were held by a motor weighing nearly three times as much and having over twice the rated horsepower of the motor that established the new ones. The Auto-Bi used was a regular road machine with the muffler taken off and having a larger driving pulley. This same machine had previously been ridden by thousands of Pan-American visitors, being one used in connection with the Thomas exhibit to give visitors free rides on the flat track in the Stadium. When the board track was put in this machine was sent to the factory, where it was used by the sales department to give rides to visiting dealers.

If You Are Interested in Automobiles



WILL SURELY INTEREST YOU.

It is published for the information
of the average mortal; no dic-
tionary of mechanical
terms is needed to
understand it.

**PUBLISHED EVERY THURSDAY
AT 123-125 TRIBUNE BUILDING,
NEW YORK CITY.**

**\$2.00 PER YEAR.
10 CENTS PER COPY.**

SAMPLE COPY ON APPLICATION.

Dealer Should Have His Say.

The manufacturer of a good article has his whole mental attitude colored by the necessity of making goods right.

As it takes a liberal supply of backbone always to adhere to quality in spite of much temptation to the contrary, the manufacturer sometimes goes to the extreme of refusing to listen to suggestions of change of any nature.

Indeed, there is scarcely any business man so tenacious of ideas as the factory man, pure and simple; the man who rarely travels and knows only of the making and but little of the selling of goods.

The other side of the story is the one that is usually presented the dealer. He realizes that articles must have commercial value and adaptation, as well as mechanical excellence. He is in constant contact with the users, whose first call is generally for things of simplicity and cheapness. From his environment it would be only natural to find him at times an opportunist.

The manufacturer and he are necessary complements of each other, and that he does so much toward introducing and pushing the sale of the best articles must be taken as a tribute to his judgment and practical common sense.

How Wrenches Should be Used.

Even to-day there are thousands of riders who do not know how to use a wrench properly. When they take this useful article out of their toolbags one has but to take a look at them to see the evidences of their ignorance or carelessness. Even if the wrench is of the better class of goods—say, a Billings & Spencer—the jaws will be spread and the corners and edges battered.

Sometimes it is used as a hammer, at others to tighten or loosen a big nut such as should have a ten or twelve inch wrench applied to it. Worst of all, it will have been used upside down. Instead of being placed over the nut so that the strain will come on the supported ends of the jaws, it is manipulated in just the opposite manner; the strain comes on the open and unsupported part of the jaws, and they very naturally spread.

This misuse of wrenches has been condemned roundly and without stint for two decades. There is scarcely a rider who has not been told how to use a wrench properly. But the old practice still continues.

Points in Salesmanship.

How often a customer goes into a store, asks for an article and is told by the salesman that he hasn't got it! Frequently the impression is conveyed that it is not unusual to be out of standard goods, that nothing is thought of it. The good salesman, however, will always convey the impression that he is surprised to learn that the last of the lot has been sold, and to give the customer to understand that another order is on the way and will be in almost immediately.

"How to Drive a Motorcycle." See "Motorcycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York. ***

The

DELIGHTFUL DAYS

of

September

October

November

will re-stimulate the interest of many cyclists and cause them to ride oftener and further than when the days were warm and perspiration oozed. Many of them will discover that they need bells and many other "little things." The dealer who, by suggestion, helps them "discover" their wants, will be doing no more than the wise storekeeper should do.

HELP THEM!

With

BEVIN BELLS

and the lamp brackets, trouser guards, toe clips and other things listed and illustrated in the Bevin catalog the dealer is in position to render assistance of the intelligent sort. If you have not a copy at hand, a postal will bring you one.



Bevin Bros. Mfg. Co.,

East Hampton, Conn.

(Business Founded 1832.)

WHY WALKING IS EASIER

Scientist Undertakes to Explain why Many Wheelmen do not Ride up Hill.

That climbing hills, especially steep and rough ones, is hard work nearly every rider will admit. That this is a fact probably accounts more than anything else for the decline in cycling about which so many people are talking. Motorcycles will, of course, cure this, along with several other drawbacks of the cycle; but until the "teuf-teufs" become much more common the hill difficulty will remain a stumbling block in the path of many erstwhile riders.

While any one can tell that hills are hard to surmount, very few people can give a scientific explanation of the fact or tell in figures just how much harder they are than level roads or than walking.

This task has been performed by a gentleman of an inquiring turn of mind, and one fond of figures. According to his remarkably interesting calculations, it is six times as easy to cycle on a level road as to walk—equal distances being taken, of course. But when a hill is negotiated—say, a hill with a gradient of one in ten—the conditions are just reversed; riding is six times as hard as walking. Is it, then, any wonder that some riders prefer to walk steep hills, and that others sigh for a motor or any old thing to help them up?

"Suppose the friction of the machine and the resistance of the ground equal 5 pounds, then a little over 25 pounds' pressure upon the pedal is required to move the machine," says this mathematician.

"In walking, a person weighing 150 pounds lifts the whole weight at every step, but in riding he only puts forth an effort of a little more than 25 pounds; therefore it is six times as easy to ride as it is to walk.

"Of course, in walking the whole weight comes upon the foot through the leg with a very slight bending action, while in riding the 25 pounds' pressure of the foot upon the pedal is accompanied by a considerable bending action of the leg, but no weight is carried.

"It follows that, roughly, riding a bicycle is six times easier than walking when on level ground.

"We have assumed that 5 pounds, or 2½ per cent of the total weight, is absorbed by resistance on a level road. It is now necessary to refer this condition to climbing a hill and see what the result is.

"Suppose an incline of one foot rise in every ten feet, and that the whole weight of the rider and machine is resolved into a wheel of 28-inch diameter.

"We know that 5 pounds is the resistance; therefore it follows that 175 pounds of weight is free to revolve backward. The first matter to determine is how much restraining pressure is necessary on the pedal to withstand this tendency.

"We know that the whole work to be done is the total weight lifted one foot high, which equals, in the example before us, 180 foot pounds of work—neglecting altogether the question of time and dealing with the static condition alone.

"The angle made by the inclined plane with the vertical and horizontal produces a similar angle to one in which the line of the radius of the wheel, which is perpendicular to the inclined plane and the vertical line, dropped from the centre of the wheel to touch the horizontal plane; by joining these two lines at their subtended ends it completes an angle identically proportionate to the angle formed by the incline of 10 to 1.

"This being so, it follows that the inclination of the wheel to run backward is to be measured in a similar proportion, viz., 10 to 1, and as the total weight, resolved into the centre of one wheel, equals 180 pounds, therefore one-tenth must be equal to 18 pounds; but there is the amount of the resistance to be taken from this, leaving 13 pounds, which has to be taken as the measure of the effort at work, at the end of the radius line of the wheel.

"Already it has been shown that the crank effort against wheel resistance is as 5 to 1; therefore 13×5 equals 65 pounds, the amount of pressure required upon the pedal to restrain the wheel from running backward.

"We have also demonstrated that 25 pounds' pressure is needed to move the machine, then $65 + 25 = 90$ pounds—the needed constant pressure on the pedals to ride the machine up an incline of 10 to 1.

"When we consider the lumpy condition of most hills and the impossibility of completing one complete circle with the two cranks without the assistance of some velocity, then it may be taken as a condition that in riding a hill of 10 to 1 the rider must always have against him a constantly retarding effort of more than 90 pounds. Then the question is answered by showing that in riding up a hill of 10 to 1 the total work done is equal to 180 pounds' weight of machine and rider lifted one foot high, equal to 180 foot pounds of work done. In walking up a hill of 10 to 1 the work done is 150 pounds, the weight of the person \times one foot = 150 pounds of work done. Hence it is easier to walk up a hill than ride by 30 as against 36, reckoning weight alone, but something else has to be considered. The rider has put out the whole work in moving his foot through a portion of the revolution of his pedal, viz., equal to 2 feet, but his wheel has carried him 10 feet. The pedestrian has moved his foot through 10 feet, hence it is five times as hard work for the cyclist—thus, again, it is easier to walk up a hill than ride up. Reasonably it may be said that, considering the varying conditions, the cyclist has really performed the heroic feat of doing 900 foot pounds of work to lift his machine one foot high, while the pedestrian has only accomplished the task of performing 150 foot pounds of work. Of course, the cyclist has performed his in a shorter time than the

other, but at a corresponding expenditure of his motive force.

"Verbum sap.—Walk a steep hill if vital force is low."

A Postal Paradox.

Here's a beautiful postal paradox: Uncle Sam will forward any sealed letter that is under weight, even though it bears but a single stamp, taking his chances of pay at the other end. But when a circular, or a newspaper, or any other piece of unsealed matter is short a penny, Uncle Sam takes no chances whatever. In fact, he has an elaborate system whereby he overcomes all chances. From the office where the offending paper is mailed—Tacoma, say—a blue card is sent to the addressee, who probably lives in Washington, telling him that he can have the penny-short paper by forwarding a one-cent stamp, at an additional cost of two cents for returning the blue card. If the penny is sent, three weeks will be consumed in a transaction that would come to a termination in one week in the case of a sealed letter. If the addressee fails to send the penny—and he usually does—Uncle Sam goes to the trouble of forwarding the paper to the Dead Letter Office, opening it within sight of the addressee's residence, and returning it to the sender at Tacoma, provided his address is found within; otherwise it is destroyed. Now, if Uncle Sam were in the shoe business, or ran an express company, or anything else that needed common reasoning to live, he would forward such mail—barring circulars, perhaps—and take chances upon collecting his penny. In most cases he would get it. If the penny were not forthcoming he would give the paper to a hospital. But, as Printer's Ink says, Uncle Sam takes no chances.

Why Aluminum has Lagged.

"One thing that has figured seriously to the disadvantage of aluminum," said a speaker before the Franklin Institute, Philadelphia, "and, indeed, has precluded it from many excellent fields of use, is the lack of a good, cheap, easily worked and permanent solder. The chief cause of the lack of success is the solder mashing and making a rough, dirty seam. If we desire to manufacture a given object of metal, we can make it cheaper in aluminum than in anything else except iron, lead or zinc, to which might be added, in composite metals, tinned and galvanized iron.

"The middle of the twentieth century will see steel and aluminum standing side by side as the most useful of the useful metals. Its greatest competitor will be tinned and galvanized iron."

The forward extension handle bar evidently has not yet reached Paris. "An odd-looking bar, projecting about four inches in front of the stem," is the way one writer in the gay city by the Seine described the bar of an American rider. Too many such bars are in use here, however, for them to be considered odd.

COMFORT

with

SPEED

Is the

CUSHION FRAME

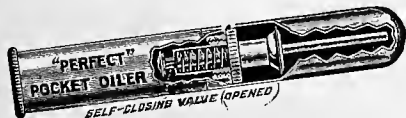
Motto.

The CUSHION FRAME is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold WITHOUT IN THE LEAST DETRACTING from the SPEED or POWER of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy, "get there" riders who at first "scoffed" the idea of COMFORT being combined with "speed and power" in a bicycle.

HYGIENIC WHEEL CO.,

220 Broadway New York.

Owners of the Cushion Frame Patents.

"PERFECT"**OILER.**

For High Grade Bicycles. The best and neatest Oiler in the market DOES NOT LEAK. The "PERFECT" is the only Oiler that regulates the supply of oil to a drop. It is absolutely unequaled. Price, 25 cents each. We make cheaper oilers, also.

CUSHMAN & DENISON, Mfrs., 240-242 W. 23d St., NEW YORK.

How Sales are Lost.

It is the duty of a salesman to insist that his goods are the best of their kind. That is entirely legitimate.

But when he departs from that safe course and inveighs against the goods sold by his competitor, he is treading on dangerous ground. In their anxiety to make sales these facts are frequently lost sight of, and salesmen devote their time to disparaging rival machines.

The merits of their own wheels are entirely lost sight of, and the prospective customer sometimes takes his departure no wiser in this respect than when he entered the store. The experience is not likely to dispose him favorably toward either the salesman or his goods, while as like as not the criticism of the rival machine whets his appetite for further particulars concerning it.

When this happens a visit to the rival establishment is very likely to occur, and if the second salesman is at all up to snuff he stands a remarkably good chance of closing with his visitor.

Good salesmen seldom make such mistakes as these. They stick to their last—the machines they are selling. Their merits, instead of the demerits, real or fancied, of the machine sold down the street, are discarded on and every effort devoted to the task of convincing the auditor that he will make no mistake in deciding to purchase the machine being shown him.

Sales are made in this way; they are frequently lost when the other course is pursued.

On Buying Tire Tape.

There are many different kinds of tire tape. The good sort is treated to a generous application of rubber solution, and is unrolled only with some little difficulty, so sticky is each layer of the tape. But there is another kind that is almost innocent of solution. It is little better than ordinary canvas, and about as much account for the purpose intended. A difference of a few cents in price means much in this case.

HAND AND FOOT PUMPS,

Oilers, Repair Tools,
Valves, Name-plates, etc.

Spelter Solder

Sheet Brass,
Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn.
Depots: 210 Lake St., Chicago.
423 Broome St., New York

WANTS AND FOR SALE.

15 cents per line of seven words, cash with order.

JOBBER, ATTENTION.—Bicycles stripped in lots of from 500 to 5,000 at special prices that are very attractive for early delivery. Wise buyers will communicate immediately with "E," care Bicycling World.

THOMAS MOTOR BI, new, not a scratch, \$100; "Mobile," victoria top, etc., all latest improvements, \$600; Milwaukee, victoria top, run about 350 miles, all latest improvements, \$600; a large stock of good steam and gasoline rigs taken in trade, for sale at all times, and we turn them quickly at close margins. Write us. Fisher Automobile Co., North Delaware St., Indianapolis, Ind.

HIGH GRADE

wheels must have the
best equipments.

There is nothing that gives more value for
the money than the use of the

MORSE TWIN CHAIN

NOISELESS IN MUD, WATER OR
DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless
Rocker Joints. Insist on having the
Morse Twin Roller. Fits regular
sprockets.

Send for Catalogue and
Trade Price to

Morse Chain Co., Trumansburg, N. Y.

**WOLFF-AMERICAN
BICYCLES.**

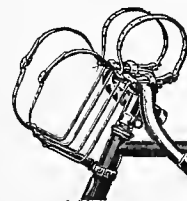
STEARNS BICYCLE AGENCY, - Syracuse, N. Y.

**FAUBER PERFECTION
HANGER.**

Unequaled in any of the Points which make
a PERFECT Hanger.

LIGHT, SIMPLE, DURABLE.

W. H. FAUBER, Manufacturer, CHICAGO, U. S. A.

**LAMSON-PETERSON
LUGGAGE CARRIERS**

The most
serviceable made.

MEQUIER & JONES CO., Portland, Me.

The Week's Patents.

681,195. Method of Uniting Tubular Metallic Frames. Erving D. Clark, Syracuse, N. Y. Filed Sept. 27, 1900. Serial No. 31,227. (No model.)

Claim.—The method of uniting metal tubes at an angle to each other by cutting in the side of one tube an aperture of the same diameter as the other tube, forming a core with a circumferential mould cavity between its ends and inserting said core into the first tube, then inserting into the end of the other tube a core fitted with its inner end tightly to the tube and having its outer end protruding and of less diameter, then applying flux to said ends of the tube and core protruding therefrom and inserting said ends into the aforesaid aperture and abutting the end of the core against the recessed side of the core, then cutting in the side of the first tube an orifice communicating with the mould cavity in the inclosed core and then casting through said orifice molten metal as set forth.

681,196. Tubular Metallic Frame. Erving D. Clark, Syracuse, N. Y. Filed Nov. 5, 1900. Serial No. 35,459. (No model.)

Claim.—1. In a tubular metallic frame the combination of a tube disposed to extend laterally from the side of another tube and provided with a key seat extending laterally from the interior of the tube and remote from the end thereof, and a core inserted in said tube and formed in one piece with a key anchored in the key seat and with a brace tying the two tubes rigidly together.

681,197. Acetylene Gas Lamp. William F. Cooper, Meriden, Conn. Filed Oct. 27, 1898. Renewed Jan. 21, 1901. Serial No. 44,157. (No model.)

Claim.—1. An acetylene gas generator consisting of two main parts, the lower one of which forms the water reservoir and the upper one of which forms the carbide holder, and a flexible fabric connection between the sides of the two, forming an expansive gas chamber.

681,214. Pedal. Charles Glover, New Britain, Conn. Filed Aug. 16, 1899. Serial No. 727,463. (No model.)

Claim.—1. In a pedal whose tread is supported wholly at one end, means for attaching the tread to the supporting member, comprising a plurality of projections, some of which act as rivets, the others being bent to approximately a right angle and acting as braces.

681,325. Handle Bar. John Hult, Hood River, Ore. Filed May 28, 1901. Serial No. 62,279. (No model.)

Claim.—1. In a spring handle bar, a stem having a side opening, and offstanding lugs at the ends of the said opening and in line therewith, a compensating spring within the stem, a bearing clamp composed of similar parts, fastenings for securing said parts together and to the said stem by passing through the offstanding lugs thereof, and a handle bar mounted in the bearing clamp and having a projecting part to enter the stem and co-operate with the compensating spring, substantially as and for the purpose set forth.

681,441. Exhaust Mechanism for Explosive Engines. William L. Corson, San Francisco, Cal., assignor to the Union Gas Engine Co., same place. Filed Oct. 1, 1900. Serial No. 32,327. (No model.)

Claim.—1. The combination with a hollow valve of a hollow stem extending therefrom, a tubular extension secured to the valve, and of means for causing the free

passage of a cooling medium through the tubular extension to the interior of the valve, the hollow stem communicating with the interior of the valve and serving as an outlet for the cooling medium, said stem and tubular extension constituting a passage open to the atmosphere.

681,565. Bicycle Fan. Orlando B. McCune and Charlie Mull, Iola, Kan. Filed Feb. 15, 1901. Serial No. 47,498. (No model.)

Claim.—1. A fan attachment for bicycles comprising a casing including sections divided in a plane including the axis of the casing, straps engaged around the casing to hold the sections from separation, a supporting bracket connected to one member of the casing, and a fan within the casing and having a drive shaft journaled in the bracket, said casing having an air-outlet opening.

DESIGNS.

35,005. Casing for Hydrocarbon Motors. Michael E. Toepel, Frank B. Widmayer and Adolph Potdevin, New York, N. Y. Filed March 18, 1901. Serial No. 51,790. Term of patent, 7 years.

Claim.—The design of a casing for a hydrocarbon motor as herein shown and described.

Here's the Health Speed Bike!

It is very much to be feared that there is a disappointment in store for one C. W. Jarvis, of Toronto. Jarvis has taken out Canadian and American patents on "a new style of bicycle," which he gives the euphonious name of the "Health Speed Bike."

"The affair has a long frame much after the style of the old wooden boneshaker, the rider pushing forward on the pedals instead of having them beneath him, as on an ordinary wheel. The horn saddle is replaced by a seat with a back to it, like a carriage seat, and the cyclist gets an extra leverage by being forced back against it, much on the same principle as the action involved in rowing a boat. It is claimed that owing to this advantage a 150 gear can be driven up a hill just as easily as an ordinary mount fitted with a 72 gear.

"The 'Health Speed Bike' is built very low, so that the rider can at any time place one or both feet on the ground without being lifted off the seat."

No More Ties.

So completely has the practice of tying spokes died out that many riders have even forgotten that it ever existed. There was a time when it was held that a wheel would not stand up unless the spokes were tied. They would loosen under usage and soon get into such a condition that the machine would be unfit to ride.

The usual method was to wrap fine wire around the two spokes that crossed and solder the joint thus made. Some ingenious inventor brought out a patent spoke clasp, however, that had a number of advantages over the wire tie. It consisted of a piece of metal shaped to fit over the two spokes, partly encircling them. A pair of dies were used to press them into place, and the result was a joint that was more secure than the tie and presented a neater finish.

Nowadays, however, few makers consider it necessary to tie their spokes at all.

The Week's Exports.

The British possessions hold the place of honor in this week's list of exports. New Zealand, the West Indies, Africa and Australia figure, while Great Britain itself is not far behind. Hamburg and Havre also continue to take considerable quantities of bicycles and parts.

Antwerp—2 cases bicycles, \$50; 3 cases bicycle material, \$140.

Argentine Republic—1 case bicycles, \$55.

Amsterdam—24 cases bicycles, \$445; 4 cases bicycle material, \$115.

British possessions in Africa—11 cases bicycles and parts, \$964.

British Australia—5 cases bicycles and material, \$146.

British West Indies—38 cases bicycles and material, \$1,044.

Copenhagen—15 cases bicycles and material, \$360.

Cuba—2 cases bicycles and material, \$101.

Chili—2 cases bicycles, \$50.

Dutch Guiana—11 cases bicycles and material, \$212.

Glasgow—9 cases bicycles, \$280.

Gothenburg—3 cases bicycles, \$75.

Hamburg—79 cases bicycles, \$2,016; 1 case bicycle material, \$15.

Havre—5 cases bicycles, \$151; 42 cases bicycle material, \$2,255.

Liverpool—57 cases bicycles, \$1,471; 3 cases bicycle material, \$40.

London—7 cases bicycles, \$85; 5 cases bicycle material, \$545.

Mexico—1 case bicycle material, \$20.

New Zealand—138 cases bicycles and parts, \$4,737.

Rotterdam—1 case bicycles, \$50; 12 cases bicycle material, \$450.

Stockholm—1 case bicycles, \$30; 3 cases bicycle material, \$284.

Santo Domingo—1 case bicycles, \$53.

Southampton—2 cases bicycles, \$81; 25 cases bicycle material, \$1,549.

St. Helens—1 case bicycles, \$25.

Trieste—2 cases bicycles, \$50.

U. S. of Colombia—1 case bicycles, \$75.

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y.

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., Thursday, September 12, 1901.

No. 24

RETAIL POOL FORMED

New England Dealers Launch Their Co-operative Purchasing Agency—Will Seek to Save Middlemen's Profits—Officers all Prominent.

All doubts concerning the successful formation of the New England retail pool, of which The Bicycling World gave the first exclusive intimation two weeks since, have been set at rest, the movement having taken shape with unexpected dispatch.

It assumes the form of the Equitable Distributing Co., with temporary headquarters at 170 Summer street, Boston, which this week announces itself ready for business.

Its officers and directors are as follows: Officers—Lud C. Havener, president; G. H. Brown, treasurer; Arthur Sidwell, secretary. Directors—Lud C. Havener, Worcester, Mass.; F. E. Randall, Chelsea, Mass.; W. S. Achorn, Lynn, Mass.; Carle P. Cubberly, Boston, Mass.; A. C. Pollard, Nashua, N. H.; Henry Corp, Providence, R. I.; George H. Brown, Boston, Mass. Arthur Sidwell, of the Record Supply Co., and George H. Brown, of the Elastic Tip Co., who promoted the enterprise, will act as joint managers. All of those named are among the best known cycle tradesmen in New England, and each is a cycling veteran in the sense of the word. Their names will go far to give strength and attract recruits to the organization.

As The Bicycling World stated two weeks ago, the enterprise is in the nature of a co-operative purchasing agency. It aims only to buy in large quantities for cash, thereby obtaining the benefits of the quantity quotations and discounts and the savings of middlemen's profits, the purchases being distributed to the members at prices just sufficiently above factory costs to cover operating expenses. It will sell to no one outside the organization.

It is expected that the mutual interests involved will go far to prevent price cutting, while the saving effected will enable the members to meet mail order or any other unfair competition, should occasion require.

According to advices from Treasurer

Brown, upwards of 200 dealers have already joined hands in the undertaking, while every other dealer in New England is expected to see the advantages derivable and to come into the fold.

On the surface, at least, the movement appears formidable and is so far reaching in its possibilities that it can scarce fail to attract the attention of other trades. Jobbers, whom its success will seriously affect, will watch its progress with eagle eyes and are hardly likely to sit with folded hands.

German Tube Trade Pools Issues.

The German tube manufacturers have now formed a syndicate, which comprises all the important concerns making steel tubes of any kind. The syndicate will be incorporated as a limited company. Each factory belonging to the syndicate can only bring a fixed quantity of tubes on the market; the overproduction has to be disposed of by the central committee.

Several of the leading manufacturers have made an assessment of the ordinary output of all the works, and the quantities to be produced by the different members are shortly to be fixed. The fixed quantity can be disposed of for prices as agreed upon; the rest has to compete with quotations from the world's market. None of the factories can be closed, as no such authority has been given.

Bennett Comes to Buy.

G. A. A. Bennett, managing director of the Universal Trading Co., Ltd., Birmingham, England, will arrive in New York next week for the purpose of looking up good things in the American market. He is particularly interested in motor bicycles. Mr. Bennett writes that he will be pleased to make appointments with any one desiring representation in Great Britain.

Echoes of the Boom.

Judgment for \$524 against the Circle Cycle Co., one of the reminiscences of the boom days, in favor of the city of New York was entered last week; no mention of collection is made. Another echo of the same days comes from Keokuk, Iowa, where the State Central Savings Bank obtained judgment for \$1,000 against the receiver of the Fanning Ball Bearing Chain Co.

DIVIDEND DEFERRED

Rubber Goods Co. Passes Payment on Common Stock—Drop on 'Change Follows.

Wall Street was somewhat taken by surprise last week when, following a meeting of the directors of the Rubber Goods Manufacturing Company at which the regular quarterly dividend of 1¼ per cent on the preferred stock was declared, announcement was made that action on the common stock dividend had been deferred.

A director of the company is quoted as saying that action may be taken on it at the directors' meeting in the first week of October. The dividends on the common stock were begun some time ago when the stock was dealt in on the curb and were 1 per cent quarterly.

The securities promptly felt the effect of the action of the directors. On the Stock Exchange the issue declined at one time nearly 2 points, to 29½, closing at 30, a net loss of 1½ points on dealings in 2,200 shares. This compares with a high figure of 33¼ made for the stock on May 2 last.

Trials of Municipal Ownership.

In carrying the corpse of the late lamented Co-operative Cycle & Motor Co. the city of St. Catharines, Ont., is having a more than interesting experience. The city fathers cannot get anyone to take the dead elephant off their hands, and their efforts to keep it decently covered with insurance is in a fair way of being thwarted.

The Imperial Insurance Co. is the first of the underwriters to withdraw its "helping hand." The cancelled policy was for \$5,000, the premium having been paid by the city just a couple of weeks ago. The amount of the premium was about \$70, which the company received; but they have since decided that the risk is not a desirable one, and ordered their local agent to cancel it.

The point in which the city is most interested is the premium. The company will return the unearned portion, but it will go to the National Trust Co. as liquidators, instead of to the city, where it came from.

It is rumored that some of the other companies also intend to withdraw their policies.

ON TO BUFFALO!

Motor Bicycles Holding Their own in the Big Endurance Contest.

While they are overshadowed by the big and powerful and more numerous carriages, the motor bicycles, which form Class D of the Automobile Club's endurance run from New York to Buffalo, are not permitting themselves to escape attention, and if indications hold true they will give as good an account of themselves as any of the other competing types of vehicles, if not a better one.

Of the bicycles entered the Stratton did not start, having failed to qualify by payment of the entry fee, it is understood. The official starters were therefore six in number, viz.: One Thomas Auto-Bi, ridden by E. L. Ferguson; one Indian, ridden by Oscar Hedstrom; one Orient, ridden by C. H. Metz, and three Regases, ridden respectively by J. Harvey Sager, George S. Green and W. L. Stoneburn. Three other Auto-Bis also started "on their own hooks."

The men got away in the order in which they reached the starting point on Monday morning, Ferguson not putting in an appearance until an hour or more after the run was in full tilt. As he had ridden down from Buffalo the week before, his absence caused much comment, but when he came into Peekskill about 1:30 in the afternoon he did so with a rush that demonstrated that flies had no chance to alight on man or machine.

It must be understood that this "endurance contest" is in no sense a race or speed trial. It rather closely approaches a century run. So long as the contestants unaided reach the several "controls" or checking stations each day within prescribed time limits practically nothing more is asked of them. To all who reach Buffalo (464.2 miles) before 9:20 p. m. on Saturday next certificates of award will be issued on the following basis: First class certificates for an average speed of 12 to 15 miles per hour; second class, 10 to 12 miles; third class, 8 to 10 miles.

All of the motor bicyclists except Hedstrom reached Peekskill (44.6 miles), the first checking station, within the time limit. Nearly all had minor troubles that delayed them. Metz sustained a bad puncture. Sager lost a pin in his intake valve, and Hedstrom struck a stone in the deep, shifting sand near Crotona and broke his front fork, to say nothing of bruising himself badly. As an extra fork was not obtainable he was forced to abandon the contest.

It was at Peekskill that the hill climbing contest was held, and it was there that George M. Hendee, the head of the Hendee Manufacturing Co., awaited Hedstrom. Hill climbing is the Indian's strong forte, and Hendee expected it to score heavily on Nelson Hill. The accident was a bitter pill to

him. The hill is what is vulgarly termed "a tough proposition." It is a 17 per cent grade and about a half mile long, and, except for a ditch on either side, it is pretty much in the condition that God turned it over to man. "Vile" is far too mild a term to apply to it. It is execrable in its depth of sand, its ridges and its protruding and hidden stones. A hill of this sort is not often met with in a week's journey. Although there was no prize for their class, all of the motocyclists attempted the climb. It is enough to say that the hill conquered. But it is not a bad reflection on the little machines. There were more than a score of the big vehicles of many times the horsepower that failed more ignobly.

All the motor bicycles, the Indian excepted, of course, reached Poughkeepsie (84.4 miles), the end of the first period, despite the fact that a Regas sustained a broken crank.

Albany, Sept. 10.—Tuesday morning found the little group of motocyclists ready for the fray. They formed three groups. The Thomas entrant, with his three "unofficial" companions, made one, the three Regas riders composed the second, and Metz with his Orient flocked by himself.

The latter had doctored up his burst tire, and is hoping that it will last him during the run. The other machines were in apple pie order, even the belts being becomingly taut.

The ride to Hudson, 41 miles, was covered quickly and safely by the Thomas and Orient contingent. But it was the Regas day for mishaps, and they came soon. One machine punctured, another broke a frame tube a short distance from Hudson, the noon control. Pushing on, however, that place was reached and requisition made on a wide-awake repairman. The latter went to work with a right good will, and at 2:30 J. H. Sager said the end was in sight, and that he expected to make a start in an hour. The other two Regases waited for their mate, but the Thomas and Orient forces went ahead. Metz got a fall coming into Albany, due to the stubbornness of a team, and bent a pedal.

All the riders reported their motors to be working satisfactorily, and were in fine spirits. The dusty roads bothered them somewhat, covering stones and bad places so they could not be seen, but no such hills as Nelson were encountered. All were ridden without trouble.

A drizzling rain began to fall about a dozen miles out of Albany, and made the roads a trifle slippery, especially near the city. The wonder is that more falls did not occur.

The two days which have elapsed have demonstrated their ability to hold their own against the larger motor vehicles. Up hill and down, over rough roads as well as good ones, they run along at a 15 to 20 mile per hour gait, and are remarkably free from accidents.

No hills have been too steep for them to surmount, save the mountain misnamed Nelson's hill. At the most a few kicks at the pedals are sufficient to bring the summit back to the machines.

HORSE-POWER DISCUSSED

Discourse That Throws Light on a Befogged Subject—B. H. P. vs. I. H. P.

A job which to many of you may seem a difficult one, and which it is often advisable to know how to set about, is the testing of a gas or steam engine, says the Cycle Trader. This is really a simple matter if only you get hold of the correct method and quite understand the principle of the test.

Engines are tested in two ways commercially, one test being called the brake test and the other the indicator test. The brake test gives the actual horsepower of the engine as given off at the flywheel. This is called brake horsepower, or, shorter, B. H. P. The indicator test gives the horsepower exerted at the back of the piston and is called the indicated horsepower, or, shortly, I. H. P. Then the B. H. P. test gives the commercial value of the engine as a prime mover, while the I. H. P. only gives the value of the engine as a user of steam or expansive gas, and takes no account of the friction itself. Then if we get the I. H. P. and the B. H. P. of an engine, and subtract the latter quantity from the former, we have the power absorbed in the engine itself—that is to say, in the bearings of the crank shaft, connecting rod ends, crossheads and piston and piston rods.

This quantity is a very valuable one to ascertain, as it correctly denotes the mechanical efficiency of the engine as a machine and tells us whether the engine itself absorbs more power than it ought in its own mechanism. Similarly, we could ascertain the amount of power absorbed in any piece of mechanism by putting a brake on the machine and deducting the amount of power thus absorbed from the power supplied to the machine. Driving by electric motor is a method sometimes adopted to ascertain the power absorbed, which is then expressed in kilowatts per hour.

The term horsepower is a term applied to the power given out by any prime mover. It has its origin in an old episode which may be interesting to retell here for the benefit of those who may be in the dark on the subject.

When James Watt first introduced the steam engine he adapted it to the pumping of water out of mines. When he met a prospective buyer of steam engines for this pumping purpose, the question was naturally asked, "How many horses' work will it do?" Now, it became necessary for Watt to have ready an answer to this question, for, as horses had before performed the work, they were the only standard of efficiency to which the new machine could be compared. Watt computed the power of one horse to be equal to lifting one pound 33,000 feet high in one

HELPFUL GUARANTEE

**Here's one That is Specific and Assures
Maker and Agent Protection.**

In consequence of the judgment in the action of Williamson vs. Rover Cycle Co., Ltd., the British Cycle Manufacturers' Trade Protection Association have drafted an amended form of guarantee which has been issued to the members, accompanied by a recommendation for its general adoption.

In a circular letter accompanying the form of guarantee, the secretary of the association states that the form submitted "has been carefully considered by eminent counsel." It is so much fuller than the American form of warranty that it cannot fail of interest in this country. The paragraph defining the term "agent" particularly is worthy of consideration. The guarantee follows:

GUARANTEE.

"We give the following guarantee with our machines instead of the guarantee implied by statute, or otherwise, as to the quality or fitness for the purpose of cycling, of goods supplied by us, any such implied guarantee being in all cases excluded. In the case of machines which have been used for 'hiring out' purposes no guarantee of any kind is given or is to be implied.

"We guarantee, subject to the conditions mentioned below, that all precautions which are usual and reasonable have been taken by us to secure excellence of materials and workmanship, but this guarantee is to extend and be in force for one year only from the date of purchase, and the purchaser shall not be entitled to claim any damages whatever save compensation for injury to the cycle. We undertake, subject to the conditions mentioned below, to make good at any time within a year any defects in these respects in our cycles. This guarantee does not apply to defects caused by wear and tear, misuse or neglect.

CONDITIONS OF GUARANTEE.

"If a defective part should be found in any of our machines it must be sent to us by passenger train, carriage paid, and accompanied by an intimation from the sender that he desires to have it repaired free of charge under our guarantee, and he must also furnish us at the same time with the number of the machine, the name of the agent from whom he purchased and the date of purchase.

"Failing compliance with the above no notice will be taken of anything which may arrive, but such articles will lie here at the risk of senders.

"We guarantee only those machines which are bought either direct from us or from one of our duly authorized agents, and under no other conditions.

"We do not guarantee the specialties of other firms, such as tires, saddles, chains, lamps, gear cases, bells, etc., supplied with

our cycles or otherwise. We endeavor to secure the highest quality of these articles, and the makers whose names usually appear thereon are nearly in every case willing to replace any defective part, and we will at all times furnish the maker's name as a proof of the quality.

"The term 'agent' is used in a complimentary sense only, and those firms whom we style our agents are not authorized to advertise, incur any debts, or transact any business whatsoever on our account other than the sale of goods which they may purchase from us; nor are they authorized to give any warranty or make any representation on our behalf other than those contained in the above guarantee."

The following is the clause in the existing form of guarantee which has been amended:

"We guarantee, subject to the conditions mentioned below, that all precautions which are usual and reasonable have been taken by us to secure excellence of materials and workmanship, and we undertake to make good at any time within a year from date of leaving our works any defects in these respects in our cycles. This guarantee does not apply to defects caused by wear and tear, misuse or neglect, nor does it entitle the purchaser to consequential damages of any kind."

Sundries "Holding Their Own."

"It is wonderful how the sale of sundries has been holding its own, despite the falling off in cycling interest," remarked the traveler. "It's amazing where all the little things go. Why, I took one order for one thousand gross of frame guards—those little rubber clips that they use on the top tube of the bicycle to prevent its being damaged when the handle bars swing around. Yes, sir; one order for one thousand gross. It made me blink when the jobber gave it to me, but as he was in earnest and the conditions were draft against bill of lading there was nothing for me to do but to accept it, and shipments have been going forward regularly and the drafts are being paid. Where are the guards being sold? You can search me! I'd like to know myself."

Where's Rucker?

According to British prints, M. D. Rucker, once of the Humber Co., and ex-partner of "Plunger" Hooley, is in this country. On what mission or where he is keeping himself they are silent.

Taking on new Lines.

The Broadway Bicycle and Sundry Co., this city, is adding a line of hardware specialties, kitchenware, etc.; the new department will cause no change of name.

Dunlop's Cheap Tire.

Dunlop prices are evidently not universally popular in Australia. As a result the Dunlop company are there marketing the Oceanic, "a good wearing tire at a low price."

minute. How he arrived at this very low estimate of the power of the horse is not exactly known, and it is probable that he only approximated to it, 33,000 being a convenient figure for purposes of rough calculation, being very nearly a third of 100,000 and near enough so for the rough estimation of horsepower required which would be wanted by Watt for the information of his prospective purchasers.

As every mechanic knows, a foot pound is a useful unit of work; so is 33,000 a useful unit of power. It must be remembered that to lift 33,000 pounds one foot high in one minute is exactly the same as to lift one pound 33,000 feet high in one minute, or to lift one pound one foot high in 1.33000 of a minute. To perform 33,000 foot pounds of work will then absorb one horsepower.

Power is defined by time, distance and pressure. Work is defined by distance and pressure only, the time required to perform the work being the factor necessary for determining the power required. It is very often that mechanics confound power with work. Without a proper understanding of the difference between the two it is impossible to follow intelligently the process of measuring the power of an engine. Many of the systems of levers, expanding cranks, etc., which are periodically invented by mechanics who ought to know better, are the result of a complete ignorance of the fact that "what you gain in power you lose in speed" in any system of leverage unless the motive power can be increased.

As the determining factors of horsepower include time, it is evident that any test of horsepower will have to include time as one of the elements of the calculation. Thus, it is always necessary to say at what number of revolutions per minute the engine will develop the horsepower claimed for it. A one-horsepower engine will perform any amount of work if given time. Thus, leaving out of the question the friction, in a supposititious case, supposing that a weight of 165,000 pounds were attached to the end of a rope, and it was required to lift it one foot high, an engine giving out one horsepower at 100 revolutions per minute would require to be so geared as to make fifty revolutions while the rope travelled through a distance of one foot. It would do this in half a minute, friction, of course, excluded. But this same engine which will only give out one horsepower could lift four times that weight through the same distance (one foot) if it were geared so as to make 400 revolutions to each foot travel of the weight. It would then have performed 66,000 foot pounds of work while only exerting 33,000 foot pounds per minute of power. It would have taken two minutes to perform the work.

Horsepower, then, is the power required to perform certain work in a given time. The brake horsepower is that adopted to ascertain this power and give, as we have said, the power at the flywheel—that is to say, the available power to do work after the engine has turned itself around at the given speed.

ANOTHER WORLD'S RECORD BROKEN !



. . . ON . . .

"The Little Blue Wheel."

WILLIE FENN, "THE BOY WONDER," AND HIS NATIONAL BICYCLE,
MAKE A COMBINATION HARD TO BEAT.

June 30th, at Vailsburg, N. J., Fenn won the 5-mile handicap from the 100-yard mark in 10 min., 29 2-5 sec. Although fast, the time could not stand as a record, as he did not ride from scratch.

July 4th, at the same place, he rode from scratch, making the 5 miles in 10 min., 33 2-5 sec., world's unpaced competition record, the best previous time being 10 min., 45 sec.

GOOD RIDERS RIDE RECORD BREAKERS.

THE TIRE BUYER

of today knows something of the value of good rubber and high grade workmanship.

He realizes that a tire made without them is a fit subject for the scrap heap.

Why throw away good money for bad tires when

FISK TIRES

cost but little more and give lasting service.

This means you, Mr. Dealer, as well as the rider.

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SPRINGFIELD; NEW YORK, 99 Chambers St.; SYRACUSE; BUFFALO;
DETROIT; CHICAGO, 54 State St.; SAN FRANCISCO, The Phil B. Bekeart
Co., 114 Second St.

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FISK RUBBER COMPANY

CHICOPEE FALLS, MASS.

THE BICYCLING WORLD

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and MOTORCYCLE REVIEW

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Change of advertisements is not guaranteed unless copy therefor is in hand on SATURDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should

Address us at P. O. Box 649.

NEW YORK, SEPTEMBER 12, 1901.

Under One Flag Only.

Some of the erstwhile cycling publications that for obvious reasons are now trying to drive the automobile and the bicycle tandem fashion, with the bicycle receiving only the minimum of attention, are suddenly striving to show how and why the two are "natural born" stable mates.

Whether the fact that certain bicycle manufacturers have resented the publishers' efforts to make the bicycle appear the automobile's boot licker, so to speak, and to advance the interests of one at the expense of the other, has anything to do with the striving, is a matter for conjecture. It is a fact, nevertheless, that several bicycle manufacturers have about decided that they will no longer pay out money to help those who are hurting them in their efforts to "play safe" and, circuslike, to ride two horses.

It is a very pretty argument that the interests of bicycle and automobile are one,

but the argument is far prettier than it is sound. Long months ago we pointed out that few bicycle agents had either means enough to purchase a stock of automobiles or room enough to carry even one of them in stock. To get one into the average cycle store requires that the door be enlarged. More than this, the price of one is equivalent to a complete stock of bicycles. These are facts that will not down.

It follows inferentially that every effort to force automobiles on the cycle dealer is at the expense of the cycling interests. If he sold cycles before, the man who "takes on" automobiles cannot have as much time and attention for bicycles. The dealer in automobiles pure and simple is not likely to "take on" bicycles. The instances where this is not the case can be counted on the fingers of one hand.

In exact language, the cycling papers that are striving to justify their circuslike positions are making the cycle trade a recruiting ground for the automobile industry, and are acting the part of recruiting agents in disguise so thin as to be readily penetrated. This appears to be the view of the bicycle manufacturers of whom we speak. They argue that anything that weakens the cycling interests weakens them; they argue that this attempt to tie the bicycle to the tail of the automobile kite belittles and weakens their interests, and are disposed, if not to resent it, at least not to encourage it. And who will say that they do not argue rightly?

There are cycle dealers, too, who resent the inference that they now must either interest themselves in automobiles or become of secondary importance and consideration. This resentment has added not a few names to our subscription list, and will, we believe, add more rather than less.

We have no fault to find with cycle dealers who handle automobiles; many of them handle carriages, sewing machines and hardware as well; but the exponents of cycling do not find it necessary to hurrah for carriages or sewing machines and to include them in their preachings to the cycle dealer.

When the automobile presented itself and some of its contemporaries took it to their

bosoms, the Bicycling World viewed the matter from every standpoint, and, having viewed it, elected to stand for and with the cycle trade without "ifs" or "isms." We did not and do not believe the good old ship, aboard which its inferential belittlers clambered with alacrity but a few short years ago, is in danger of foundering, or that it needs to be towed by automobiles or anything else. The flag of cycling is nailed fast to the Bicycling World masthead, and will never be torn down or replaced by that of automobilism or anything else.

When the cycle trade is ready to acknowledge itself so weak that it cannot stand on its own legs and support a journal devoted exclusively to its interests, we will furl the flag and preserve it as a souvenir—then, and not before. Signs of such distress are not now visible, nor can we believe the bicycle will so far fall from the world of utility as to make them possible.

Guarantee Worth Considering.

It may be rather late in the day to suggest a change in the form of guarantee that has obtained for so many years, but certainly the warranty outlined for adoption by the British Cycle-Manufacturers' Trade Protective Association, published in another column, merits more than the casual consideration of the American trade. It includes several features that are worthy of all attention.

Not only is it explicit and specific to a degree that seems to leave no room for argument or misunderstanding, but it apparently strengthens not only the maker, but the legitimate agent, and in a manner that is not to be denied.

In the case of the manufacturer this guarantee absolves him from "making good" or being called to account for rental machines—those "knockabouts" of the retail trade. The clause dealing with the term "agent" also appears an admirable safeguard. That term is so elastic and carries with it such a measure of legal responsibility that the wonder is that it has not caused more trouble and legal entanglement for our manufacturers than has been the case.

The clause in the British warranty that applies it only to such bicycles as are purchased from the makers themselves or from their authorized agents is likewise a happy stipulation, from the latter's standpoint at least. Of course, it may be argued that a

manufacturer should "stand behind" any and all bicycles bearing his nameplate; but the condition referred to unmistakably makes for the discomfiture of the auctioneer, the crook, the fakir and the price-cutter—certainly a consummation to be aimed at at any and all times. It places the questionable gentry at a distinct disadvantage, however they may obtain reputable bicycles, and at once strengthens the legitimate dealer not a little and assures him of desirable protection and his full measure of profit.

We repeat that our manufacturers may well give serious heed to the suggestions which this English guarantee conveys.

Extent of Motor Bicycle Interest.

If anything was required to demonstrate that the interest in motor bicycles is world-wide in extent, the export editions of the *Bicycling World* supplied the deficiency.

The evidence reaches us unsolicited from the one advertiser of that type of bicycle, the Royal Motor Works. C. A. Persons, the head of that concern, writes us under date of the 5th inst.:

"We desire to congratulate you on the splendid returns secured through our advertisement in your export edition. Replies began coming in a few days ago, and we have had as many as twenty-five in a day. As they are from Denmark, Holland, Belgium, Germany and Ireland, as well as England, it is plain that you gave the paper a very wide and discriminate circulation. The inquiries reaching us all look like immediate business, and we find on investigation that they are from the best houses in the trade. This correspondence we will cheerfully allow you to inspect at any time."

At the time Mr. Persons wrote this letter the English edition, to which he refers, had not had time to reach the several African, Asiatic and Australian countries in which the issue will circulate, nor had the French and Spanish editions left these shores. When these papers reach their destinations we are more than confident that the Royal people, if they are so minded, will be able very substantially to supplement their communication.

We publish the letter not alone because of our personal gratification, but because we believe it holds more than mere hope for every one interested in motor bicycles. It points the way to a future export trade that will increase as motor bicycles increase, and gradually attain that degree of perfection to which it is possible for human effort to attain.

As these export editions will serve to indicate a measure of foreign interest, so does our sale of the instructive little publication, "Motocycles and How to Manage Them" act as a reasonably good barometer of American interest; in this regard it is fair to say that the demand for the book was never so large as during the past two months—a fact that seems to possess significance.

Letter Writing as a Retail Aid.

Letter writing is an important branch of business education. The ability to write a graceful, courteous, conservative communication cannot well be expressed in dollars and cents, but it is a medium of unfailing profit to all who possess or are able to command it.

In all large business institutions the fact is recognized, and salaries and advancement are affected for better or worse by ability of the sort. The manufacturer and "city house" appreciate to the full the importance of well written letters. So much of their business is transacted by mail that slothful or indifferent communications would do more harm than good.

It is not manufacturer or "city house," however, that we have in mind. It is rather of the effect of letter writing on retail trade that we would speak.

While they are well aware how they themselves are affected for better or worse by letters from those of whom they purchase, country merchants, generally speaking, apparently have small, if any, idea of the effect of a letter on those who purchase of them. It may be that many of these merchants recognize their lack of ability in this regard, but whatever the cause it is rare that any of them pen a letter to a customer; practically all of their correspondence is with those of whom they purchase their goods.

To those merchants who are able to compose an intelligent letter, or who have in their employ some one who has ability in that direction, the writing of an occasional letter to customers or possible customers, as, for instance, when new goods or a novelty arrives, or when something seasonable or in the way of a bargain offers, should commend itself as a means of making new patrons and cementing the friendship of old ones, of fostering goodwill and good feeling and of increasing one's business generally. Such letters make the recipient feel that the merchant is taking a special interest in him or her, and as so few of them are written the dealer who writes them should be

the greater gainer. Dealing with this very subject, a contributor to a dry goods publication tells just how it works in that line of trade. He says:

"I know a very successful merchant, living in a country town, who by correspondence built up a trade extending for many miles around that was as loyal to him as the congregation of a minister. Twice every year he sent out letters, written in longhand, inviting farmers' wives especially to call and examine new samples of calico, muslins, etc., which he inclosed in the letters. These were written by his clerks during spare hours. Very few of the recipients ever guessed that this letter was not written by the head of the store himself. They were invited to call, and they were given actual samples of goods, which were marked at an exceedingly low price. The impression made on their minds that they had been specially sought out and invited to visit so well known and successful a merchant was very gratifying to them and established a cordial relation toward him and his store."

Of course, the bicycle dealer cannot mail samples of his bicycles nor of his tires, lamps, bells, coaster-brakes, etc., but he can write to possible customers inviting their inspection or calling their attention to anything new or special or seasonable that comes to hand. It is in the nature of man (and woman) to be "tickled" and impressed by pleasant letters, and such letters, intelligently written, should repay the cost of the postage many hundredfold. Try it! But in trying it do not deceive yourself into believing that printed circulars or cheap handbills are letters.

Nothing better shows how thoroughly the motor tricycle and quad have been eclipsed by the motor bicycle than the failure of the Automobile Club's New York-Buffalo run to attract a single entry of the former types. And in truth it is doubtful if either the three-wheeler or the four-wheeler could have lived in the deep, shifting, stone-studded sand encountered on the first day's journey. Their tenure of use and promise in this country was so short that they can scarcely be classed as "also rans."

The New England retail pool will bear watching. It is an experiment that is so far reaching in its possibilities as to be almost revolutionary. Its workings and results are of interest to even those outside of the cycle trade.

MOTOR BICYCLES ABROAD

They "Suggest Things" to an Observant Correspondent.

London, Aug. 28.—It would appear that a good many people are becoming dissatisfied with the look of the average motor bicycle and are demanding something which shall not seem to the casual observer to be merely a bicycle with a motor clipped to some more or less convenient part of the frame. No doubt also a considerably increased efficiency would be obtained by building the motor into the framework of the machine, but against this plan there is the consideration of complications arising in the event of a breakdown.

George Gibson, who was one of the early pioneers of disk-adjusting hubs, has invented, or rather designed, a machine in which the motor chamber takes the place of the crank bracket, and the motor shaft forms the pedal shaft, with the exception that a gearing is interposed in order to start the machine more easily. I believe that in one pattern this gearing is also done away with, and that the pedals and cranks are in some way connected by a clutch to the motor shaft. So far the machine has not got beyond the drawing-board stage, but it should prove all right in practice, although the cost may be a bit high.

It seems to me that the motor bicycle lends itself much more readily to having the motor built into the frame than the tricycle, although in the latter case several attempts in this direction have been made. None of them have, however, caught on like the simple De Dion motor, and, this being the case, manufacturers will be rather careful about adopting new ideas in the motor bicycle line. Furthermore, it must be remembered that at present the trade in motor bicycles is not large, although every week it is increasing, notwithstanding that we are now rapidly drawing to the end of the cycling season. It would be a great thing to get rid of the belt driving on motor bicycles, if possible, and this can be done by building the motor into the frame, as Mr. Gibson suggests.

For some reason the police and the public do not seem to take so much notice of high speeds on motor bicycles as they do when motor tricycles and quads are concerned. It may be that the appearance of the motor bicycle looks so much like the common safety that it excites but little attention, or that bicycle traffic is now recognized to be much faster than the ordinary vehicles that a bicycle has a certain license. But there can be no doubt that a time will come when the

motor bicyclist will find his liberty considerably curtailed, and this will occur so soon as the country "bobby" realizes that the machines really come under the Light Locomotives act, and that it offers him a grand chance for securing petty convictions and consequently rapid promotion, for it is to the fact that convictions of no matter how trivial a nature lead to promotion that the constant interference of the police with cyclists and motorists is really due.

Some strange misunderstanding seems to have arisen concerning the remarks made by Mr. A. Long, the president of the Local Government Board, when he was recently interviewed regarding road improvement and other kindred matters. He could not have said that cyclists and motorists have little chance of receiving attention in the matter because they are not taxpayers, for motorists and motocyclists are taxed just as much as carriage people. In addition to this, cyclists are as a rule taxpayers, but no doubt if anything was said about taxation it applied to direct duties, which the cyclist escapes. The motorist has a much better locus standi in the matter, having regard to the fact that he is a taxpayer specially on account of his car or machine.

So far as motor bicycle engines are concerned, there can be no doubt that the manufacturers of the Minerva are doing a large trade. It seems rather curious that the De Dion people do not make and push a small motor specially for two-wheelers, because it must be admitted that there is every possibility of these machines rivalling, and perhaps exceeding, the motor tricycle in popularity. It all depends upon the progress they make during the next few months, and how the orders and inquiries come in at the shows. So far I have not seen a single machine of the type fitted with a De Dion motor, and yet with the outcry of the speedy brigade for more powerful engines it would have been supposed that some of the old pattern $1\frac{3}{4}$ -horsepower motors, which must surely be in stock, would have been sold for motor bicycles. These same $1\frac{3}{4}$ -horsepower engines were remarkably well made and gave practically no trouble. I cannot say the same for the smaller motors fitted, for valve troubles are very common with such machines. On the Werner, for example, the stem of the inlet valve is constantly breaking, or the nut holding the spring strips the thread. If a hole be bored to receive a transverse pin the stem is almost certain to snap after a comparatively short time. We seldom had troubles of this kind with the early De Dion motors. Anyway, it is a remarkable thing that the Messrs. De Dion and Bouton do not put a small motor on the market—there is room for it if sold at a reasonable price.

It has recently been urged by a writer in a

daily paper that one of the objects to the motor bicycle is that sufficient petrol and lubricating oil cannot be carried to insure a fair day's ride without replenishing the tanks. Mr. Van Hooydonk, a small maker in the North of London, has solved this difficulty by fitting a very large petrol tank, the forepart of which is partitioned off for lubricating oil. He also fits a special lubricating pump by which the oil can be forced through to the motor without dismounting. These are details, but great improvements nevertheless.

Small Buyers are now Wise.

"It is pretty hard to work off job lots in the small towns nowadays," observed the man, apparently, who had tried it. "I don't know whether the country men have grown wise, but I know they won't buy. The cities are the only places in which we can unload, and the Eastern ones, strange to say, are now better for the purpose than those in the West.

"Despite what people call adverse conditions and the supposition that the city people have cut their eyeteeth, it looks as if there are those left who will purchase any old thing that is offered at a price. I've sold some pretty rotten stuff to that 'Storage Co.' which I suppose is included in the stuff they are advertising as having been 'seized for storage charges.'"

Newport's Negro Agent.

Newport, R. I., that seething society centre of automobile and motorcycle interest, possesses one of the few negro cycle dealers in the country—Ulysses Grant Scott by name. Scott is a particularly bright and energetic example of his race. He conducts two stores, and has been uniformly successful. He has made the most of his stock of motorcycles, which consists of four quads, three tricycles and two bicycles. He rents them at \$7.50 per day, and it is rare that they are idle. "They don't owe me anything" is the way Scott expressed it when questioned.

Boom on in Cebu.

While Manila and Iloilo are generally supposed to be the centres of cycling interest in the Philippines, it develops that the "contagion" has spread to Cebu, where the demand is apparently decidedly boomlike.

Switzer & Co., the leading dealers there, describe the demand as "simply marvellous." "The natives," they say in a letter to the *Bicycling World*, "have so taken us by storm that we have not been able to get bicycles fast enough to supply their demands."

Coming from Japan to Purchase.

R. Sumi, of the well-known cycle-importing house of R. Sumi & Co., Osaka, Japan, is now on the water en route to this country. He comes to make purchases, of course, and is due to arrive in New York about November 1.

Campbell on Changed Conditions.

"The sale of bicycles," as a Kansas City paper quotes Fred Campbell as saying, "has been revolutionized in the last five years. Few seem to realize this, but it is so. We have two seasons now, spring and fall, where we formerly had only one. All wheels come out fresh in the spring; the new models go on sale then. It used to be that a man would not buy a wheel in the fall for fear spring would show an entirely different style, with improvements that he could not add to his wheel, and so he would have to buy a new one. We used to sell our trade new wheels every spring.

"Now, however, the bicycle is standard. The spring brings a new model still, but the changes in it are small. The man who buys now uses his wheel till it is worn out.

"The decrease in price of wheels was because machinery improved and the manufacture was simplified. But the greatest change in the bicycle business is the method of sale. It used to be that as many wheels were given away almost as were sold. Every racer had his machines free, and every fellow who had a little pull would go to a dealer and say:

"'Here, I can swing so much trade, but I have to have a wheel to do it.'

"And he would get a new wheel every season. Then there were the great race meets, with the crack riders, all of whom were under salary to the makers, who bid

high for their services. Wheels were sold on the instalment plan and never were paid for, either, making losses more than the profits.

"All that is changed now. There are no more high-salaried riders, nor tremendous prize lists. Wheels are not given away to get trade now; if a man wants one he buys it, and only one thing will do that, and that is the cash in hand.

"Of course, we do not sell so many wheels to fashionable people as we did. The craze has passed. But every one who can make use of a bicycle has one these days, and that trade is as good as any, for, as I have said, it's money that counts now."

Australia Gains an American.

It develops that the American superintendent who was imported to direct the Dunlop Tire Co.'s Australian factory, recently established, is John Kearns, of Akron, Ohio. His arrival in Melbourne is noted with compliments enough to warm Mr. Kearns to his new home.

Yost's New Industry.

Joseph L. Yost, of Toledo, one of the veterans and long a figure in the cycle trade, has embarked in the manufacture of electrical supplies and novelties. He is the head of the newly organized Yost-Miller Co., which will occupy a part of the former Yost bicycle factory in Toledo.

Hoover in Bankruptcy.

In the United States District Court at Pittsburg, Pa., last week, a petition in bankruptcy was filed by Frank T. Hoover. The liabilities were placed at \$5,620.49 and the assets at \$1,000.

African Assemblers.

In Natal, South Africa, there are a number of cycle agents, and even a few local assemblers, who turn out a number of machines from parts, the latter being mostly of British manufacture.

May Build in Bridgeport.

It is probable that the Connecticut Fibre Co. will erect a plant at Bridgeport, Conn., to be used for the manufacture of a non-puncturable or armored tire for bicycles and automobiles.

English Exports Expand.

July was another month that held joy for the English export trade. Like May and June, the statistics showed an increase—from £41,006 in July, 1900, to £49,856 in July, 1901.

Hartford to Enlarge Again.

The Hartford Rubber Works Co. has purchased a considerable tract of land adjoining its present plant; it argues, of course, a corresponding enlargement of its facilities.

FITTINGS THAT FIT CROSBY

Fit, Style and Finish make Bicycle Sellers
and save much in factory cost.

ONE INCH FITTINGS

Flush Head Sets with cap nut.
Cluster and Hanger with oval rear lugs.

THE CROSBY COMPANY, - - BUFFALO, NEW YORK.

RACING

Johnny Nelson is dead. He passed away at Bellevue Hospital last Monday morning at 3 o'clock. He was removed to the hospital immediately after the injuries received in the race at Madison Square Garden Sept. 4, and although badly injured, hopes for his recovery were entertained until last Saturday, when gangrene set in; it was then found necessary to amputate the leg at the thigh. He was too weak to survive the operation, and died on Monday, as stated. There are few who take an interest in cycle racing who will not regret Nelson's death. On and off the track he was a gentleman. He was neither a braggart, a brawler or a crap shooter. He was unassuming and retiring to a degree. Success never turned his head. There was no cleaner or more self-respecting man on the track. Indeed, if there were more Nelsons, the tone of the sport would have been distinctly better. He had won nearly \$18,000 this season, and most of the net proceeds, some \$6,000, he had banked. Nelson was born in Sweden twenty-one years ago, and his mother and father are now there. He has three brothers in this country, Fred, the elder, who lives in Chicago; Joe, a younger brother, who all this season has been practising behind motor pace, and Emil, the youngest, whom Nelson was educating, and had only last week been placed in a Boston school by Johnny.

The funeral will take place immediately upon the arrival of his brother Fred from Chicago. Greenwood Cemetery, Brooklyn, has been selected as the burial place.

Taylor by his remarkable riding at Charles River Park last week has made a big jump in the championship table, and has now but a few points to make to gain the lead. There were no flukes nor fouls, and the wins were clean and decisive, and made with such a burst of speed as the Major has not shown before since his return to this country. On Friday, September 6, he won the quarter-mile national championship, defeating Fenn in the grand semi-final and Lawson in the final. In the two-mile championship, however, the Major was caught napping, and Fenn beat him by a length. On the following night, however, Taylor proved himself invincible, winning the one-third mile and the one-mile national championships in hollow style, making Kramer and Lawson look like second-raters. There were no complaints made, and inquiry among the riders failed to bring forth a single kick.

This meet was supposed to be the real championship of the season, and each race

had extra points allotted for the place men. Taylor by his three first and a second added 28 points to his score.

The ten-lap soup bowl track in Madison Square Garden has claimed another victim, and the bloodstains of the latest and saddest spill will remain as long as the track is left standing. The victim was Johnny Nelson, who fell to his death in the 15-mile motor-paced race with Jimmy Michael on September 4. The men were started from opposite sides of the track, and from the pistol Michael, riding in record time, gained on the little Swede until, just after two miles, he had gained half a lap and was riding directly behind Nelson. In the third lap of the third mile the rear tire of Nelson's motor burst, and the pedals of the heavy machine dug great gashes in the track. The men and



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

machines were thrown some thirty feet along the track, and Nelson, striking the wreckage, was thrown directly in front of Michael's pacing machine, which went directly over him, the pedals and gearing cutting great pieces of flesh and muscle from the calf of his left leg. The blood poured from Nelson's leg in great streams, and only the quick action of a doctor in the audience in stopping the flow of blood saved the little fellow's life for the time being. He was at once removed to Bellevue Hospital, and on Saturday last it was found necessary to amputate the leg at the thigh, blood poisoning having set in. It was thought for a time that he would die under the operation, but he regained consciousness and lingered until Monday at 3 a. m., when he died.

The crews of both pacing machines were badly shaken up, but escaped serious injury. Michael, with his usual good luck, darted up the track at the first signs of trouble, and escaped without a scratch. He rode two laps after the accident and was then awarded the race.

On the Madison Square Garden track, Sept. 5, Bobby Walthour once more proved that, in condition, he is more than a match for Elkes; in a 15-mile race behind single motors Elkes seemed to be unable to keep up his end, losing his pace whenever it seemed necessary to sprint. The men started from opposite sides of the track, and from the start Walthour gained steadily, riding in record time, and in the second mile had gained a lap on Elkes. The men seasawed at this standing until the ninth mile, when Elkes lost his pace and two more laps. In the eleventh mile Elkes's handle bar came loose and he fell heavily, and was unconscious when picked up. Walthour's time for eleven miles was 18.18 4-5.

Michael won his eighth straight race by defeating James Moran at Revere Beach, Boston, on September 7, and, incidentally, broke all track records and a few world's records. The race was for 20 miles, motor paced, and at the start Michael jumped and took the pole from Moran. Moran rode the best race of his life, and it took Michael four miles to gain a lap. Time for four miles, 5.53, and for five miles, 7.23; ten miles, 15.04; twenty miles, 30.37. Since Michael's return to form he has now defeated all of the pace followers in turn, and is constantly breaking track records at each appearance; Tom Eck confidently expects him to break the world's hour record within the next few weeks.

Seven thousand people were set howling last Sunday at the Vailsburg track by the action of Lawson when he consented to a runover of the final in the half-mile event after he had beaten out Frank Kramer. There was a large entry list, and after a number of heats Kramer and Lawson lined up for the final. Entering the stretch Kramer punctured, and Lawson won without trouble. After much talk the final was run over, and Kramer won by inches. Hurley again proved that he is faster than any of the other "pures" by winning easily the quarter mile open and one-mile handicap.

McEachern turned the tables on Bennie Munroe at Baltimore and Washington on September 6 and 7, easily defeating the latter in a 20-mile motor-paced race at each track. Be it said for Munroe that he was without his regular pacing machines, and was compelled to accept strange machines, which Munroe claims were not nearly fast enough to pull him through. The times—at Baltimore 32.34 1-5 and at Washington 31.18—were very much slower than Munroe is capable of doing.

Owing to Nelson's sad accident, Floyd McFarland was substituted in the 20-mile motor-paced race against Jimmy Michael at Springfield on September 5, and was easily

(Continued on page 478.)

Always Glorious

If there is a time when coasting is

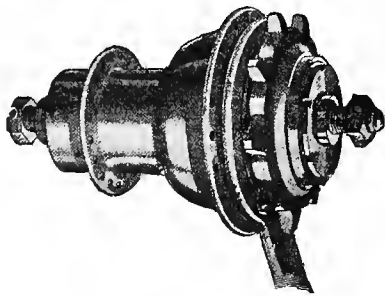
More Glorious

it is during the months of Autumn.

It is Then

that the wise dealer can make the most of

THE MORROW



The magnificent rush down hill is then doubly exhilarating—the cool, crisp, bracing air makes the blood tingle and the cheeks glow. It elevates the spirits, drives the cobwebs from the brain and makes life seem worth the living.

Whether the Weather

be warm or cool, the Morrow places convincing arguments within easy reach of the dealers who know how to use them.

Are



one of them.

ECLIPSE MFG. COMPANY, Elmira, N. Y.

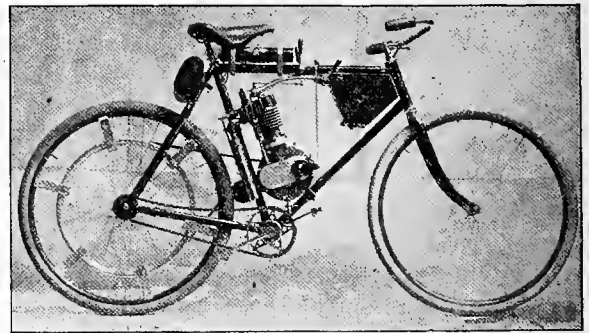
WHAT'S THE USE of Standing Astride the Fence?

You know what the proverbs say: "The man who hesitates is lost"; "Faint heart ne'er won fair lady," etc., etc.

GET OFF THE FENCE!

If there's "nothin' doing" in your locality, get off the quicker. It's time you interested yourself in motor cycles. You can't do it too soon, and you you won't be able to find so good a motor bicycle as

THE MARSH.



It will draw crowds to your window and fill your store with probable buyers. If you know how to talk, the rest is easy.

The Marsh has features all its own; you can't afford to overlook them. It will prove an invigorating

TONIC FOR LANGUISHING TRADE.

Our catalog is interesting; our offer to agents is full of magnetism. They may be the means of getting you off the fence. Write us.

MOTOR CYCLE MFG. CO., BROCKTON, MASS.

"A great deal in a little space."

—The Press.

"THE FOUR-TRACK SERIES"

This is the title of a series of books of travel and education issued by the Passenger Department of the

NEW YORK CENTRAL &
HUDSON RIVER RAILROAD.

These small books are filled with information regarding the best modes of travel and the education that can best be obtained by travel.

They relate specifically to the great resorts of America—to trips to the islands of the sea and around the world.

They also contain numerous illustrations and new and accurate maps of the country described.

A copy of the 40-page Illustrated Catalogue of the "Four-Track Series" will be sent free, post-paid, upon receipt of postage stamp by George H. Daniels, General Passenger Agent, New York Central & Hudson River Railroad, Grand Central Station, New York.

AMERICAN INGENUITY

Patent Office's Report Proves Past Year to be Greatest in its History—The Record.

The annual report of the Patent Office is always of interest, showing, as it does, the growth of American ingenuity. It follows that the report for the fiscal year which closed with June last, and which has just been issued, is worthy of note. In the total number of applications filed and in the amount of receipts and expenditures it develops that the year 1900-1901 was the greatest in American history from the inventive standpoint.

Summarized, there were received 42,082 applications for mechanical patents, 2,368 applications for designs, 101 applications for reissues, 1,860 caveats, 2,312 applications for trademarks, 1,036 applications for labels and 176 applications for prints. There were 26,481 patents granted, including reissues and designs, and 1,826 trademarks, 824 labels and 124 prints were registered. The number of patents that expired was 20,690. The number of allowed applications which were by operation of law forfeited for non-payment of final fees was 4,288. The total receipts of the office were \$1,408,877.67, the total expenditures were \$1,288,970.13, and the surplus of receipts over expenditures, being

the amount turned into the Treasury, was \$119,907.54.

The details and comparisons with previous years follow:

APPLICATIONS AND CAVEATS RECEIVED.

Applications for letters patent.....	42,082
Applications for design patents.....	2,368
Applications for reissue patents.....	101
Applications for registration of trademarks.....	2,312
Applications for registration of labels.....	1,036
Applications for registration of prints.....	176
Caveats	1,860
Total	49,935

APPLICATIONS AWAITING ACTION.

Number of applications awaiting action on the part of the office on July 1, 1901.....	7,683
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APPLICATIONS FOR PATENTS, INCLUDING REISSUES, DESIGNS, TRADEMARKS, LABELS AND PRINTS.

June 30, 1892.....	43,544
June 30, 1893.....	43,589
June 30, 1894.....	39,206
June 30, 1895.....	41,014
June 30, 1896.....	45,645
June 30, 1897.....	47,747
June 30, 1898.....	44,216
June 30, 1899.....	40,320
June 30, 1900.....	45,270
June 30, 1901.....	48,075

APPLICATIONS AWAITING ACTION ON THE PART OF THE OFFICE.

June 30, 1892.....	9,447
June 30, 1893.....	8,283
June 30, 1894.....	7,076
June 30, 1895.....	4,927

June 30, 1896.....	8,943
June 30, 1897.....	12,241
June 30, 1898.....	12,187
June 30, 1899.....	2,989
June 30, 1900.....	3,564
June 30, 1901.....	7,683

PATENTS GRANTED AND TRADEMARKS, LABELS AND PRINTS REGISTERED.

Letters patent granted (including reissues and designs).....	26,481
Trademarks registered.....	1,826
Labels registered.....	824
Prints registered.....	124

Total 29,255

PATENTS WITHHELD AND PATENTS EXPIRED.

Letters patent withheld for non-payment of final fees.....	4,288
Letters patent expired.....	20,690
Applications allowed awaiting payment of final fees.....	8,189

RECEIPTS AND EXPENDITURES.

Receipts from all sources.....	\$1,408,877.67
Expenditures	1,288,970.13

Surplus \$119,907.54

COMPARATIVE STATEMENT.

	Receipts.	Expenditures.
June 30, 1892...	\$1,268,727.35	\$1,114,134.23
June 30, 1893...	1,288,809.07	1,111,444.22
June 30, 1894...	1,183,523.18	1,053,962.38
June 30, 1895...	1,195,557.07	1,038,166.08
June 30, 1896...	1,307,090.30	1,097,368.85
June 30, 1897...	1,343,779.44	1,088,473.16
June 30, 1898...	1,253,948.44	1,092,449.83
June 30, 1899...	1,209,554.88	1,148,663.48
June 30, 1900...	1,358,228.35	1,247,827.58
June 30, 1901...	1,408,877.67	1,288,970.13

The Equitable Distributing Co.

(Incorporated.)

President, LUD C. HAVENER, Worcester, Mass.

Directors:

LUD C. HAVENER, Worcester, Mass.
HENRY CORP (Corp Bros.), Providence, R. I.
WILLARD S. ACHORN, Lynn, Mass.
FRED E. RANDALL, Chelsea, Mass.
CARL P. CUBBERLY, Boston, Mass.
A. C. POLLARD, Nashua, N. H.
GEO. H. BROWN, Boston, Mass.

Treasurer,

GEO. H. BROWN,
(Late with Elastic Tip & United Supply Cos.)
Boston, Mass.

Secretary,

ARTHUR SIDWELL,
(Late Manager Record Pedal Mfg. Co.)
Boston, Mass.

Every legitimate bicycle dealer throughout the New England States should make himself acquainted at once with the aims and objects of this Company.

170 Summer St.

The Equitable Distributing Co.,

Boston, Mass.

The DELIGHTFUL DAYS

of

September

October

November

will re-stimulate the interest of many cyclists and cause them to ride oftener and further than when the days were warm and perspiration oozed. Many of them will discover that they need bells and many other "little things." The dealer who, by suggestion, helps them "discover" their wants, will be doing no more than the wise storekeeper should do.

HELP THEM!

With

BEVIN BELLS

and the lamp brackets, trouser guards, toe clips and other things listed and illustrated in the Bevin catalog the dealer is in position to render assistance of the intelligent sort. If you have not a copy at hand, a postal will bring you one.



Bevin Bros. Mfg. Co.,

East Hampton, Conn.

(Business Founded 1832.)

(Continued from page 475.)

defeated by the Welshman in slow time—33.18 3-5. The race, however, had exciting moments, as McFarland fought hard every time the midget attempted to pass him; a number of times during the race the two rode abreast lap after lap before Michael would finally succeed in getting away.

When Henri Fournier, the French chauffeur, arrived in this country and was induced to ride a motorcycle around the Madison Square Garden track, he aroused the warm blood of his countryman, Albert Champion. As a result the latter is out with a challenge to race Fournier any distance up to five miles for \$500 a side. Champion, incidentally, signs himself "champion chauffeur of France."

Harry Elkes had rather an easy time of it in his bout with Albert Champion at Madison Square Garden Sept. 7. The race was for fifteen miles, motor paced, and from the start Elkes rode rings around Champion and won as he pleased in slow time.

Fresh from defeat at the hands of Jimmy Michael the night before, James Moran defeated Harry Caldwell in a 25-mile paced race at Bridgeport on Sunday, September 8, in the slow time of 41.24 2-5. Caldwell had but little or no preparation, and lost by over a mile.

Michael won again at Hartford Sept. 10, defeating Albert Champion in a 20-mile motor paced race. The race was uninteresting, Michael winning very much as he pleased in slow time—33.21.

Describing a racing tire of foreign make and of wonderfully light construction, a dealer who sold it said that the rubber on the tread was so thin that he thought it had merely been photographed on the tire.

"Defects (in motorcycles) and How to Remedy Them." See "Motorcycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York. ***

NEW SYSTEM

of Gasolene Engine Ignition, "Autogas" Dry Battery, double porcelain insulated Ignition Plug, Secondary Coil, etc.

WILL SEND

1/3 DOZ. of my Automobile Dry Battery anywhere, f. o. b. New York, **FOR \$3.**

Write to-day for circulars, and mention
Bicycling World.

WILLIAM ROCHE,

Inventor and Sole Manufacturer of New Standard Specialties.

43 Vesey Street, New York City.

If You Are Interested in Automobiles



WILL SURELY INTEREST YOU.

It is published for the information of the average mortal; no dictionary of mechanical terms is needed to understand it.

**PUBLISHED EVERY THURSDAY
AT 123-125 TRIBUNE BUILDING,**

NEW YORK CITY.

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10 CENTS PER COPY.**

SAMPLE COPY ON APPLICATION.

WANTS AND FOR SALE.

15 cents per line of seven words, cash with order.

JOBBER, ATTENTION.—Bicycles stripped in lots of from 500 to 5,000 at special prices that are very attractive for early delivery. Wise buyers will communicate immediately with "E," care Bicycling World.

THOMAS MOTOR BI, new, not a scratch, \$100; "Mobile," victoria top, etc., all latest improvements, \$600; Milwaukee, victoria top, run about 350 miles, all latest improvements, \$600; a large stock of good steam and gasoline rigs taken in trade, for sale at all times, and we turn them quickly at close margins. Write us. Fisher Automobile Co., North Delaware St., Indianapolis, Ind.

HIGH GRADE

wheels must have the
best equipments.

There is nothing that gives more value for
the money than the use of the

MORSE TWIN ROLLER CHAIN



NOISELESS IN MUD, WATER OR
DUST AND ALWAYS EASY RUNNING.

The only chain having Frictionless
Rocker Joints. Insist on having the
Morse Twin Roller. Fits regular
sprockets.

Send for Catalogue and
Trade Price to

Morse Chain Co., Trumansburg, N. Y.

WOLFF-AMERICAN
BICYCLES.

STEARNS BICYCLE AGENCY, - Syracuse, N. Y.

Letters, not Circulars, Wanted.

"May I venture to suggest to American manufacturers that when an English agent asks for American agencies it is to be presumed he means business?" writes a correspondent of the Iron Age. "An English firm has recently been advertising in the Iron Age with a view of arranging suitable agencies in this country. As a result the firm in question has received a number of circulars, trade lists and catalogues, but the difficulty is to receive letters from suitable firms making responsible proposals. There is little use in sending trade lists and catalogues without writing letters making more or less provisional offers."

Should Prove a Seller.

A Parisian firm has just introduced a little forecarriage by means of which a bicycle can be quickly converted into a tricycle with a seat for the "passenger" at the front, as in a motor quad. The attachment replaces the usual front wheel of the bicycle. While its use on pedal-propelled bicycles may be limited, there is small doubt that sooner or later a forecarriage of the sort for use on motor bicycles will net the inventor a snug income.

Inventory Every Month.

"A plan that I have found very useful and economic in my own store is to take an inventory every month," writes a dealer. "This will disclose to you what goods are the most salable, and also what class of stock it is desirable for you to dispose of by bargain. It will enable you to know at all times your exact need, whether it be to supply a new stock of staple articles or to dispose quickly of stock which threatens to become a drug on the market."

One More Original Claimant Dead.

The death is announced in England of Richard Hammond, a coach builder, at the age of seventy-three, who claimed to have made the first pedal and crank bicycle in England. His machine, which was made of wood and iron, was partly a copy of a French invention, and was made a month after an illustration of the French machine appeared in a technical paper.

HAND AND FOOT PUMPS,

Oilers, Repair Tools,
Valves, Name-plates, etc.

Spelter Solder

Sheet Brass,
Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

SCOVILL MFG. CO.

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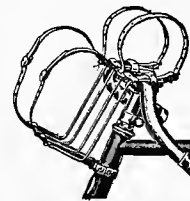
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"STAR"



We make oilers for almost the entire trade. The
quality of our oilers is unequalled.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.

LAMSON-PETERSON
LUGGAGE CARRIERS

The most
serviceable made.

MEQUIER & JONES CO., Portland, Me.

Highback Coaches on B. & A.

Commencing Thursday, July 11, the Boston & Albany R. R. will run vestibuled high-back seat COACHES between Boston and Buffalo, on trains 7 and 18, except Sunday, and on trains 29 and 36 daily. Also, Pullman parlor cars on trains 15 and 18, daily. ***



K-O-K-O to be on the go, get your tires from
Kokomo. Made and sold by

KOKOMO RUBBER CO., Kokomo, Ind.

STEEL
BALLS

The Best in
the World.

EXCELSIOR MACHINE CO., BUFFALO, N. Y.

The Week's Patents.

681,718. Variable-Speed Gearing for Bicycles. George T. Martin, Smith's Falls, Canada. Filed May 31, 1901. Serial No. 62,515. (No model.)

Claim.—1. In a variable-speed gear of the class described, the combination with a pedal shaft, of a single continuous hollow mandrel supported independently of the pedal shaft and provided with a driving element, a two-part clutch having one member made fast with the pedal shaft and its other member connected to the hollow mandrel to slide thereon and to turn therewith, a train of multiplying gearing driven by the pedal shaft and having its final member made fast with the shiftable clutch member, and adapted, under certain conditions, to propel the hollow mandrel, and means for shifting the slidable clutch member and the final member of the gear train, substantially as described.

681,761. Wheel. Willem J. H. Verheggen, Daniel H. J. Van Mens and Paulus F. Van Keep, Breda, Netherlands. Filed March 27, 1901. Serial No. 53,075. (No model.)

Claim.—1. In an improved wheel, the combination of two plates, made in the form of a star, placed one on each side of the boss, having their branches bent inward, with metal tubes or rods fixed to the inner edge of the wheel rim, these tubes or rods being slidably arranged in suitable stirrups fixed to the before-mentioned plates, the said rods or tubes being surrounded by compression springs, one end of each spring bearing against a crosspiece fixed to the stirrup and the other end bearing against an adjustable nut screwed on the said rod, substantially as set forth.

681,897. Sparking Igniter for Gas Engines. Charles H. Wanee, Indianapolis, Ind. Filed Oct. 20, 1900. Serial No. 33,722. (No model.)

Claim.—1. In a gas engine, the combination with a crank shaft, of an oscillatory cylinder, a piston mounted therein and connected to said crank shaft, whereby the cylinder will be oscillated by the reciprocation of the piston, a pair of co-operating terminals carried by said cylinder, one of said terminals being movable toward and from the other, and a stop arranged in the path of movement of the movable terminal.

681,911. Perambulator. Fred Genzlinger, Phoenix, Ariz. Filed April 10, 1901. Serial No. 55,241. (No model.)

Claim.—1. A device of the class described comprising a coach including sills connected at their rear ends, a body mounted upon the sills and a forward axle provided with wheels and pivotally connected with the sills, said sills having also a caster wheel connected therewith adjacent to their rear ends, and a driving mechanism adjustably connected with the sills and including a drive wheel and pedals operatively connected therewith, a steering shaft being mounted between the coach body and drive wheel and having operative connection with the pivoted axle.

681,977. Sparking Plug. Jean M. Ricard and Francois C. Gary, Toulouse, France. Filed March 15, 1901. Serial No. 51,223. (No model.)

Claim.—A sparking plug comprising a socket, having a conical seat formed within its bore, a non-conducting ring, one end of which telescopes with the adjacent end of the socket, a sleeve having one end fitted to the conical seat in the bore of the socket, a rod extending through the sleeve, said rod having a collar or shoulder on one end and a centring washer embracing adjacent ends of the ring, sleeve and rod whereby to hold

them concentric and out of contact with one another, and means on the rod by which parts of the plug are held together.

682,012. Securing Elastic Tires to Wheels. William F. Williams, London, England. Filed April 13, 1901. Serial No. 55,749. (No model.)

Claim.—1. The combination, with the holding-on band for a hollow elastic tire or tire cover, of sheaths or beadings for the edges of the band, formed of longitudinally slitted tubes embracing the edges of the band and presenting a rounded external surface to contact with the sides of the tire or tire cover, as described.

682,096. Muffler for Steam or Gas Motors. Carl Loper, Lichtenberg, near Berlin, Germany. Filed May 11, 1901. Serial No. 59,804. (No model.)

Claim.—1. In combination with a muffler for steam and gas motors a tube for leading the steam or gas to the muffling device and a nozzle connected with the said tube and having partly a circular and partly a flat cross section, the flat part of the nozzle being provided with slots.

The Retail Record.

CHANGES.

Mattapan, Mass.—Walter Thompson, sold out to Barden Cycle Co.

Massena, N. Y.—Ira J. Raymond succeeded by Ira J. Raymond & Co., E. H. Hitchcock having purchased a half interest.

Cleveland, O.—W. E. Jones, discontinued.

FIRES.

Superior, Wis.—A. Hunter, 294 Fifth street, total loss; insured for \$500.

Ansonia, Conn.—Lombardi's bicycle store; loss, \$3,000; insured for \$2,000.

DEATHS.

Bath, N. Y.—Cotton & Davison, H. J. Davison dead.

Recent Incorporations.

Cleveland, O.—Athleta Cycle Co., incorporated with capital stock of \$125,000.

Wilmington, Del.—Washington (D. C.) Auto-Vehicle Co., incorporated to manufacture automobiles, motorcycles and parts. Officers: J. Sprigg Poole, president; J. B. Chamberlain, vice-president; T. Janney Brown, secretary-treasurer. Capital stock, \$1,000,000.

Oiling as an Art.

Little and often is the way to oil effectually. A drop or two at short intervals will do vastly more good than a thimbleful of oil two or three times a year. The first gets to the place where it is needed and stays there, lubricating the bearing until its usefulness is entirely gone. The other way floods the bearing and much of it runs out, being wasted entirely.

Chains Require Care.

Never let a chain get too loose. A certain slackness is necessary, of course; but too much is bad for chain and sprocket wheels and rider. A little attention will bear good fruit in this direction.

The Week's Exports.

Great Britain and her colonies last week again accounted for the lion's share of America's cycle exports. Denmark, Japan, France and the Philippines also took shipments of tidy if not large proportions. The record in detail, the week closing September 3, follows: Antwerp—2 cases bicycles and parts, \$55. Argentine Republic—2 cases bicycles, \$100. Amsterdam—10 cases bicycles and parts, \$364. British possessions in Africa—29 cases bicycles and parts, \$1,126.

British East Indies—1 case bicycle material, \$38.

British Guiana—10 cases bicycles and material, \$689.

British Australia—40 cases bicycles and material, \$1,736.

British West Indies—31 cases bicycles and material, \$1,079.

Central America—1 case bicycles, \$14.

China—1 case bicycle material, \$17.

Copenhagen—72 cases bicycles, \$700; 86 cases bicycle material, \$1,483.

Cuba—6 cases bicycles and material, \$379.

Gothenburg—2 cases bicycles, \$70.

Genoa—6 cases bicycle material, \$155.

Glasgow—4 cases bicycles and material, \$105.

Hamburg—4 cases bicycles, \$150; 31 cases bicycle material, \$788.

Hong-Kong—2 cases bicycles and parts, \$460.

Havre—3 cases bicycles, \$150; 21 cases bicycle material, \$1,090.

Japan—14 cases bicycles, \$729; 5 cases bicycle material, \$507.

Lisbon—2 cases bicycle material, \$60.

Liverpool—26 cases bicycles, \$600; 3 cases bicycle material, \$61.

Messina—2 cases bicycles, \$50.

London—32 cases bicycles, \$670; 13 cases bicycle material, \$1,035.

Milan—3 cases bicycles and material, \$96.

Nova Scotia—1 case bicycles, \$14.

Philippines—7 cases bicycles, \$890; 1 case bicycle material, \$28.

Rotterdam—41 cases bicycles and parts, \$690.

St. Petersburg—2 cases bicycles, \$70.

Uruguay—2 cases bicycles and material, \$59.

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y.

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., Thursday, September 19, 1901.

No. 25

EFFECTING ECONOMIES

A. B. C. Pruning Knife Being Wielded Right and Left—Four to Survive?

As the date of its annual meeting draws near, the trade is once more concerned with the affairs of the American Bicycle Co., and, as usual, the air is charged with rumors more or less difficult of verification.

That the pruning knife of economy has not lost its edge is, however, apparent. As the Bicycling World stated exclusively at the time, the Reading and Milwaukee factories have been closed and dismantled and the Crawford sales department discontinued.

Last week it came out that similar action had been taken with the Monarch sales department, which has been merged into the Columbia department, and which will hereafter handle the Monarch and Barnes bicycles.

These moves it is freely stated are merely preliminary to the final concentration of the business into four factories and four sales departments, two of each in the East and two in the West.

The Columbia, Cleveland, Rambler and Crescent factories and departments are understood to be the ones that will be continued.

Headquarters in New York will, it is understood, likewise undergo considerable contraction.

The automobile department has already been divided and transferred to the factories at Toledo and Indianapolis, and this is taken to foreshadow similar action as regards the bicycle end of the business. It is believed that only an executive office will be maintained in New York.

Record-Breaker Breaks.

The T. M. Roberts Supply House, the Minneapolis mail order concern which broke all existing records by offering for \$7.84 what was alleged to be a bicycle, has come to grief, now being in the hands of receivers. What will be done with the concern ultimately is uncertain. There is to be a meeting of the creditors in Chicago to consider the proposition.

Weston's Acquisitions.

Where the I. A. Weston Co., of Syracuse, had one factory before, it now has two, and where there was a Land before there is now a Smith.

The factory which it has acquired is that of the Jamesville (N. Y.) Mfg. Co., which was purchased outright, and will be operated in addition to the Syracuse plant. Wire wheels was the specialty of the Jamesville concern, and the Weston purchase means that the Weston people intend to devote an increasing share of attention to that industry, and all who know them will not doubt for a moment that the Weston wheels will prove equal to the Weston reputation.

The Jamesville enterprise, however, will in no way affect the production of Champion and Vulcan hubs, which, if anything, are in greater favor than ever, and which richly deserve it. Substantial orders for next year are reported already in hand.

The Smith who is now of and with the Weston staff is H. Romeyn Smith, formerly of the American Distributing Co., of Syracuse. He succeeds to the office of secretary-treasurer so long filled by Frank Land, who has disposed of his interests in the Weston Co. It is enough to say that Mr. Land has a worthy successor.

New England Pool Incorporates.

The Equitable Distributing Co.—the New England retail pool—has been incorporated under the laws of Maine, with a capital stock of \$250,000, representing 10,000 shares at \$25 each.

President Havener was in New York late last week and expressed himself as sanguine of the success of the movement. Of the 3,500 cycle dealers in New England, he believes that more than half of them will be gathered into the Distributing Co. The establishment of a warehouse at some central point and the selection of an arbitration committee to regulate prices and pass on all differences that may arise are matters now under consideration.

Mr. Havener said further that the opposition of the jobbing trade had naturally been anticipated, and had been taken into account.

On their part the jobbers most affected have not been idle. It is expected that they will hold a meeting in Boston during the current week to discuss the situation that has arisen.

CROSBY CONTINUES

Unexpected Changes in Springfield Affairs do not Alter his Position.

As the result of a deal just concluded, the well-known Springfield one-piece and cotter pin crank hangers will henceforth be made at Jamestown, N. Y.

The parties to the transaction are the Springfield (Mass.) Drop Forging Co. and the Straight Mfg. Co. of Jamestown. For a consideration not made public the entire crank hanger business of the Springfield Co., including good will, trade name, stock manufactured and in process, and the special machinery and tools for the manufacture of crank hangers, is conveyed to the Straight people, who retain the Crosby Company, Buffalo, as their selling agents for these goods. The Springfield Drop Forging Co. will manufacture the forged parts for the hangers, and the Crosby Company will supply, as heretofore, the crank boxes and ball cups.

The Straight Mfg. Co.'s facilities for turning out these goods are not excelled by any concern in the country. With their exceptionally fine water power and their long experience in the manufacture of crank hanger sets, it is certain that Springfield quality will be maintained. The Straight location being midway between the East and West also adds to their advantages. Incidentally, the Straight Co. is the holder of a license under the much litigated Smith bottom bracket patent.

The Springfield Drop Forging Co. will continue to manufacture drop forgings, both rough and machined, their well known line of wrenches and the high grade Snow chains. The Crosby Company will, of course, continue as selling agents for these productions.

Kelsey Absorbs Colton.

The Kelsey Co., Buffalo, N. Y., which succeeded to the jobbing business of Matthew Straus, has now purchased and will take over the business of H. C. Colton, another of its rivals. After Nov. 1st, the Kelsey Co. will remove to 39 and 41 Court Street, the present address of Colton.

WESTON'S SURPRISE

Frank F., of New York, Develops a New Coaster Brake and a \$100,000 Company.

Frank F. Weston is back again in the coaster-brake game in a large way which in itself means an addition of "ginger" to the trade.

The announcement late last week of the incorporation of the Barwest Coaster-Brake Co., capital \$100,000, and with Weston as one of the incorporators, was the first inkling of the fact that had been made public, and it served to explain the appearance of an unidentified coaster-brake in the Weston desk for several months past.

The company, of which P. M. Berry, of J. L. Prescott & Co., manufacturers of Enameline stove polish, is president, and Mr. Weston secretary and treasurer, is already in a position to talk business, Weston, of course, having entire charge of the marketing of the device, with offices at 99 Chambers Street, this city. His wide acquaintance and long service in the trade, to say nothing of his experience in pushing the Morrow in its earlier days, will undoubtedly stand him to good purpose. During the past six weeks work has been progressing rapidly on the completion of tools for turning out 100,000 of the hubs. As this output can be easily quadrupled should circumstances warrant, Weston promises prompt deliveries in season to meet all demands. He himself has had the coaster-brake bee buzzing near him at all times, and his judgment in embarking with the Barwest counts for not a little.

"After my active connection with the coaster-break ceased," he says, "I determined to produce a coaster-brake which would embody my ideas of what a coaster-brake should be and which should incorporate the cardinal principles of few parts and simple ones. I finally laid the case before a prominent mechanical engineer, and the result is the Barwest coaster-brake, which, while it is new to the public, has been in actual service on the road for twelve months past, and has been subjected to every test that I could conceive a coaster-brake should be put to. We have built a number of these brakes for experimental purposes, and do not hesitate to guarantee our every claim.

"These claims are as follows:

"1st. It is so simple in its construction, there being but nine pieces, that it is absolutely fool proof.

2nd. It adds but one and one-half pounds to the weight of a bicycle, and is therefore lighter by a pound or more than any other reliable coaster-brake.

"3rd. In appearance it is an ordinary barrel hub, being only two inches in diameter. The braking ring expands on the inside of the hub and between the flanges, so that the strain of the brake ring will not pull the wheel out of true, as occurs when the brake tension is put on one side only. The sprocket

is always in perfect alignment, as the brake is applied radially, instead of laterally, and is dust proof.

"4th. This entire hub can be substituted for the regular hub, and it can be put into any bicycle anywhere by anybody.

"5th. The wheel is absolutely free. The bicycle will move either backward or forward without applying the brake.

"6th. It coasts on separate ball bearings on each end of the hub, and is so free in its action that the valve stem will balance the wheel, thus showing, beyond the shadow of a doubt, that there is absolutely no retarding friction when the rider is coasting, and it will outcoast any brake made.

"7th. When pedaling ahead the clutch action is so constructed that it is positively locked immediately pressure is put upon the pedal, and there are no springs or other retarding movements to overcome.

"8th. Any sprocket, from six to twelve teeth, is applicable to this device.

"9th. A bevel gear can be substituted for the ordinary sprocket, so it can be used on chainless machines, and it will be furnished to fit chainless machines.

"10th. The braking ring is made of phosphor bronze, which expands by an eccentric on a wedge against the inside of the hub between the flanges, and has such an expanding power that the slightest pressure exerted on the pedal will bring the machine under perfect control. The brake, however, will release immediately when the pressure is taken off. It can never stick or throw the rider.

"11th. No fibre is used; hence it can be filled freely with oil, which is a necessity to the successful wearing qualities of any coaster-brake, and, as a consequence, it never "hollers" or becomes hot under the severest application of the brake.

"13th. Mathematical deduction, reinforced by practical tests, has enabled us to prove beyond peradventure that the strength of the driving mechanism is several times greater than that contained in any other similar device."

Repair Trade Remarkable.

While the sale of bicycles fell away, L. C. Havener, the veteran Worcester (Mass.), dealer reports that the demand for sundries has continued strong, while the repair business has been remarkable. It was only this week that he was obliged to reduce the force in that department. When automobiles were mentioned, Havener smiled and remarked that he would rather sell the tires, pumps, spokes and other sundries for which automobilists had need, than handle the complete vehicle. But his faith in motor bicycles is undiminished.

Flush Joints Effect an Opening.

Rudge-Whitworth, who are generally rated the most progressive manufacturers in Great Britain, have "plumped" for flush joints, and will make them a feature of their 1902 models. Heretofore the English trade has been a unit in opposing this American innovation.

WORCESTER'S WOES

Once More Aired in Court—General Creditors Still in the Fight.

The interminable case of the Central Trust Co. of New York vs. the Worcester Cycle Mfg. Co. was up again last week before Judge Arthur L. Brown in the United States Circuit Court for the district of Massachusetts in Boston.

Some time ago the court issued a rescript setting forth that the city of Worcester was entitled to about \$1,500 from the Worcester Cycle Manufacturing Co., in payment of its claim for taxes and water rates dating back a number of years. Yesterday City Solicitor Arthur P. Rugg appeared before the court with a copy of a decree he had drafted calling for the payment of this money.

Attorney Van Brunt, of New York, representing the Central Trust Co., opposed the granting of the decree in the form offered by Mr. Rugg.

Mr. Rugg's decree calls for the payment of the taxes from 1896 to date. Counsel for the trust company held that after 1899 the city should look to the buyer of the Worcester steel works plant for the taxes.

The court indicated that Mr. Rugg prepare a decree calling for the payment of the taxes up to and including the year 1898, which he did, and which court indicated should be paid. But this decree was not approved yesterday, as counsel for the trust company and city solicitor failed to agree upon the matter of interest, and the counsel will again appear before the court shortly.

After the hearing on the city's claim for taxes the court heard another phase of the case.

Counsel for the Central Trust Co. appeared before the court in the matter of a decree of foreclosure of its mortgage on property of the cycle company. The court told the bondholders to prepare a decree of foreclosure on the property of the cycle company amounting to \$320,000, and the counsel for the trust company desired the court to hold that in this matter the property of the cycle company should include about \$14,000 personal property in the hands of Receiver Smith.

This was opposed by T. Hovey Gage, jr., of Hopkins, Smith & Hopkins, who is assignee of the cycle company for Massachusetts and who is trying to save some of the assets of the company for the general creditors who live in Worcester, and elsewhere in Massachusetts and Connecticut.

The court in this phase of the case intimated that Mr. Gage's rights in the \$14,000 in the hands of the receiver would be determined later.

Rockwood Hoar, master in the case, appeared before the court with his account of expense, and the court ordered the bill to be paid.

OVERWHELMED BY MUD

Despite Heroic Struggles on Villainous Roads, the Motor Bicyclists in the Endurance Run are Forced to Succumb.

Buffalo, N. Y., Sept. 14.—When motor bicycle meets mud, especially such mud as exists north of Albany, place your pennies on a victory for the mud!

If ever any doubts existed on that score they were effectually put to flight by the result of the Automobile Club's New-York-to-Buffalo endurance contest, which was "called off" at Rochester early this morning immediately on receipt of the mournful news of the President's death. Although officially abandoned, the motor bicycles remaining in the contest completed the run to Buffalo on the go-as-you-please plan.

Except for the Hendee entry, which suffered a broken front fork 25 miles from the start, all went well, or fairly well, on the first day, as was stated in last week's *Bicycling World*. At Albany, the stopping place on the second night, the Regas ridden by W. L. Stoneburn "turned up missing." The next day, Wednesday, the rain set in, and the other two Regases went awry and were lost on the road between Albany and Fonda (204 miles). C. H. Metz, on his powerful Orient bicycle, took advantage of the side paths, and was first of all the contestants to check at Fonda. E. L. Ferguson, on his Thomas Auto-Bi, followed soon after.

From Fonda to Herkimer the roads went from bad to worse; the rain converted the vile roads into quagmires, and, as there were no side paths to aid the motocyclists, they suffered. They slipped and slid and fell, and then fell again. But they pressed on—often afoot—and reached Herkimer long after night had fallen and after the checking station had been closed. The bottom again dropped out of the skies the next day, but Metz, Ferguson and Sherman, the latter having accompanied Ferguson from New York, although not officially entered in the run, pushed on, and after heroic efforts on bottomless roads, reached Syracuse (307 miles). There human endurance gave out, and, though Metz attempted to reach Rochester the next day, he got but seven miles on his way, and then "chucked it" and finished on a railroad train.

The struggles of the trio in the mud, rain and darkness were terrific, and really approached the heroic. Mile after mile, hour after hour, day after day, they slipped and slid until it became plain that something must give out, and the riders, being only human, flinched first. They could stand being pelted with rain and plastered with mud, but the falls, which were many and severe, finally necessitated their withdrawal.

The end came at Syracuse. Sherman, the Thomas defender, had struggled along the previous day with a lame leg—the result of a nasty fall; his knee was so swollen that it could not be bent. Only by being helped on his machine was he able to start. The pain was very severe, and he was utterly unfit to cope with the nearly 150 miles of still wet and muddy road ahead. The decision to take the train to Rochester at least was the only one possible, and it was made at last, although with reluctance. His companions also elected to take this course.

The Regas contingent, which had met with ill luck, had proceeded to Rochester by rail. There matters had been put to rights, and they were ready to pursue their journey. Its abandonment prevented this being done.

As has been stated, the motor bicycles rose superior to all difficulties save one. They could not proceed when there was no road for them to use. Dusty roads, stony roads, even muddy roads with a hard bottom, presented no insurmountable obstacles. But when even the latter failed they were almost at the end of their resources.

Side paths were oases in a desert that stretched in every direction. On several occasions the *Bicycling World* man watched the motor bicyclists sailing along, utterly oblivious to the pelting rain, while the quagmires, misnamed roads, were making it very unpleasant for the automobile in which the reporter sat. The vehicle went almost where it pleased. It slipped and slid and tossed menacingly until the chauffeur's sole object was to keep it out of the ditches; the jolting and pounding were something frightful to experience. But with a rain soaked side path beneath him the motocyclist flew along, casting pitying glances at the occupants of the automobile. Could he have had cycle paths all the way, not even the big Bishop carriage could have given him much of a beating.

Sad to relate, however, the side paths extended very much less than half way. They came to an end just when the rider had gotten used to them. Leaving them was like a descent into the muck of the nether regions.

Some fifteen miles out of Herkimer Sherman was overtaken by darkness, and had to walk the greater part of this distance, the roads being particularly villainous and innocent of side paths. It had rained nearly all day, and this added to his miseries. That he ever reached Herkimer is wonderful. He did, however, at midnight, well nigh exhausted, but full of grit.

The next day's stage, Herkimer to Syracuse, was quite as bad. Rain fell at intervals until afternoon, and there was no improvement in the roads. Sherman covered the distance, but only after almost unheard of exertions.

At Herkimer Metz waited until after ten o'clock, hoping that the rain would stop. It had degenerated into a steady drizzle, but just after the Orient rider set out the rain descended in torrents and forced Metz to shelter.

Upon reaching Rochester by train it was found that the run was off. Nevertheless both Metz and Sherman determined to finish the journey a wheel, and reached Buffalo without much trouble. The rain had ceased, the roads partly dried. Consequently the day's work was an easy one.

Remarkable to relate, despite the rain and mud and heavy falls throughout the trip, motor troubles were almost unknown. Even sparking troubles failed to make themselves felt. In this respect the little machines did much better proportionately than the big gasoline automobiles.

The bicycles themselves withstood the knocking about wonderfully well. Cranks were bent, and even broken, and other small injuries inflicted; but none of them were serious save those to the Hendee and the Regas machines earlier in the week.

As a result of the run there is an almost general belief that, given a non-slipping tire, the motor bicycle will go anywhere an automobile will, and many places it won't.

As it stands at present, side slip is almost its only weak point. It should be pointed out, also, that such runs, and especially such roads as those encountered last week, will not often be met with, and unless in a contest, no sane man would think of attempting to navigate them on a cycle of any sort.

There are stories afloat that one of the participants used the railroad train more than the rules allowed, but pending developments this mere hint must suffice.

Paris Show in December.

The French cycle show—officially, "the Fourth International Automobile, Cycle and Sports Exposition"—has been set for December 10-25 next; it will, as usual, be held in the Grand Palais, Paris. M. Gustave Rives, 6 Place de la Concorde, is chairman of the committee on organization.

The Shake-Down Abroad.

The Yorkshire County Cycle Co., of Leeds, England, which started with a considerable flourish several years ago, is being wound up. The business of Lamplugh & Co., the veteran English saddle makers, is being offered for sale.

Motor Bicycles for Spaniards.

The Wisconsin Wheel Works are evidently looking far afield. They have already issued a catalog of the Mitchell motor bicycle in the Spanish language—the first catalog of the sort on record.

Advances in Tubing.

The absorption of the Shelby Steel Tube Co. by the United States Steel Corporation has had its effect: the price of tubing has advanced 5 per cent.

"Defects (in motorcycles) and How to Remedy Them." See "Motocycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York. ***

New York City to Buffalo in 42 Hrs. 55 Mins. ON A NATIONAL CHAINLESS BICYCLE.



This is the bicycle upon which E. A. Payne, of Amsterdam, N. Y., established a new record from New York City to Buffalo.

A NATIONAL BICYCLE IS ALWAYS TO BE DEPEND-ED UPON FOR ANY SERVICE.

NO OTHER BICYCLE IS LIKE IT.
IT'S IN A CLASS BY ITSELF.

NATIONAL CYCLE MFG. CO.,

BAY CITY, MICH.

A WISE DEALER

will not let his stock of tires run down just because the season is waning.

The best of the riding season is still before us and many a rider will get out his wheel and have it put in shipshape, equip it with new tires and prepare to enjoy the fall days.

Better be ready for him when he calls.

If you have handled

FISK TIRES

you know why the sale of them represents your best interests.

If you have never handled them ask any rider who has had experience with them and he will tell you the whole story in a nut shell.

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CHICOPEE FALLS, MASS.

THE BICYCLING WORLD

FOUNDED 1877
and MOTORCYCLE REVIEW

In which is Incorporated
the "The Wheel" and the "American Cyclist."

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Change of advertisements is not guaranteed unless copy therefor is in hand on SATURDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should

Address us at P. O. Box 649.

NEW YORK, SEPTEMBER 19, 1901.

When death strikes down the chosen chief-tain of a nation, as ours was stricken down, sad though it be, it serves a purpose: It proves the nation to possess, indeed, a heart—a heart whose every cord vibrates with feeling as the heart of individual man himself is touched. It proves how flimsy are the threads of party strife, and how firm the tie that makes the millions kith and kin. As it rouses so it proves our deeper than reverence—our affection, our love for our executive. We loved McKinley, though till his martyrdom we knew it not.

But as such death up-fills the tear wells of the nation's heart, so does it deeply stir the dormant savage that exists in man. And as the savage stirs, there comes conflict with grief and reason—there comes regret that there is law that even briefly saves for humane death the wanton whelp in human

guise who thrust aside the welcoming hand to better place the bullets of assassination. Such bastards of the human kind!

Striking at the Guerillas.

With the shaping of policies and the compilation of catalogues for next year that is near at hand, we would again urge upon the American trade the adoption of the mutually protective clause in the English form of guarantee, which we published in full last week.

As a whole, the guarantee in question impresses us as being distinctly superior to that employed in this country, but whether or no, there can scarce be two minds on the value of the particular clause to which we refer, to wit:

"We guarantee only those machines which are bought either direct from us or from one of our duly authorized agents, and under no other conditions."

We have discussed the subject with a number of retailers, and all have been quick to recognize the aid and protection which such a provision affords them.

It is a provision that makes straight and unquestionably for the undoing of the price cutters and shysters who are so prone to advertise "all prominent makes at cut prices" as an alluring bait, and with whom the guarantee and talk of guarantees is a mighty factor in effecting sales.

If the provision appeared in the guarantees of all reputable manufacturers and the fact were emphasized by both maker and dealer in their advertising and other printed matter, the purchasing public would soon learn to fight shy of the guerillas that infest the trade and to deal only with the legitimate dealer. The provision makes the guerillas' "prominent makes at cut prices" so much half dead stock and at the same stroke unerringly directs purchasers to the reputable agent.

We are convinced that the American manufacturer who adopts it will make a ten strike with his agents. It is the sort of protection that protects.

The Fate of Class D.

It is not pleasant to record that Class D of the Automobile Club's endurance contest was entirely overwhelmed by mud. But the fact remains. Class D was made up of motor bicycles and was perforce the class with which cyclists and the cycle trade were particularly concerned.

Unexpected and unpleasant as was the re-

sult, it will, however, dismay only the short sighted and pessimistic I-told-you-so's. In the light of the present nothing in the form of a bicycle—nothing in the form of a road vehicle that depends on momentum for its equilibrium will ever be able to rise superior to mud that is not only deep but slippery and unclageous. The fact may as well be admitted. It could not be successfully denied were denial attempted.

As the Bicycling World's representative remarks in his report of the contest, such villainous roads are not often encountered, and when they are no sane cyclist, unless in a contest of the sort, would attempt their navigation, the word being used advisedly.

The heroic handful that slipped and slid and fell, only to rise again, gave abundant proof that they did their best; and man cannot do more. They succumbed only to the inevitable. They failed, but they failed gloriously. None could have endured more or better.

It may be that among the wonders stored in the recesses of the twentieth century, there is that which will overcome or counteract the laws of equilibrium and gravitation and place the instrument or vehicle that will not stand alone on a plane of equality with that which stands on its own base, but the likelihood is almost too remote for thought. It is well, therefore, to recognize that the bicycle, whether pedal propelled or motor driven, has its limitations, and that the limit is reached when deep mud is reached.

In viewing the overwhelming of Class D and the results of the endurance contest, let it be not overlooked that some thirty odd comparatively high powered vehicles in the other classes succumbed to the same influences (and to minor ones) that affected the motor bicycles. If misery loves company the motor bicycles had no lack of it.

British Buncum.

American "bounce" and the American tariff are two subjects that periodically return to vex the English soul.

The English soul is a peculiar affair. Its owner's eyes see only when and how their owner wishes them to see. Its owner's brain absorbs only such facts as its owner bids, and its owner's mouth breathes brag while denouncing it. The article from the pen of A. J. Wilson, which we republish in another column, will serve as an excellent example of the sort.

Mr. Wilson has grown gray in the service of the cycle trade, and his tirade against "American bounce," while letting fall great

gobs of the English article, shows a lack of logic and information regarding tariff conditions that is not to be expected of such a man.

Belief in the superiority of the productions of one's own country is perfectly natural and is easily understood. It is such beliefs that constitute the patriotism on which nations are founded and on which they exist. It is the belief which inspires the ebullition of patriotic pride that our British friends are pleased to term "bounce." We have no quarrel with them on that score. They are entitled to their beliefs, and would be queer creatures did they not possess them.

But their mental blindness in refusing to see that the tariff had nothing to do with the expulsion and exclusion of the British bicycle from this country is incomprehensible.

Mr. Wilson says that when the subject is mentioned we shriek that the "transcendent superiority of the American bicycle" did it. For the sake of argument the fact may be half admitted—only half admitted, because in the same breath we have "shrieked" a question at our English critics, which we have never heard answered. This is the question:

"Why, if British arguments are true, was the English bicycle once able to dominate the American market when the same tariff then existed that exists to-day?"

Will Mr. Wilson, like everyone else who has tackled the subject, dodge the question, or will he answer it?

The tariff itself has not altered a jot in 20 years, and, despite its impositions, England once sold tens of thousands of bicycles in this country.

The facts of the matter are that when the demand justified we set ourselves to learn how to build bicycles and in time we learned how to build them as good—for the sake of English nerves we will not say better—as our tutors, and at a very much reduced cost. That England was the tutor we cheerfully acknowledge. But it was not the tariff; it was as good a bicycle at a much lessened price that enabled the American trade to come into possession of its own market and to reach out into the markets of the world.

The American tariff is now merely an irritant and obstacle to the American merchant abroad and a bugaboo to foreign eyes that is far worse than Banquo's ghost. The *Bicycling World*, in common with many other publications, has for years urged its repeal. But in all that we have seen appear in British prints no mention of the fact has been made. British fairness seems to be averse to

to stating that there are Americans themselves who repudiate the tariff, and would have it wiped out. Why, we cannot understand; but the fact remains. There are of us many who welcomed such retaliation as Russia recently instituted, and such as Germany proposes to institute, if for no other reasons than that they serve to show how two may play at the tariff game and that they illustrate how unwise and unnecessary and obstructive is such alleged "protection of home industry."

At the last annual session of the National Association of Manufacturers, embracing all trades, it was made plain that the preponderance of opinion was overwhelmingly in favor of tariff repeal, and it was hoped that the wisdom of such action would be forced on the political party which stands committed to the policy of such alleged protection. But the speech made by the late President McKinley the day before he was struck down by the assassin's bullet rather shattered the hope. He indicated that the tariff, having outlived its original purpose of protecting "infant industries," might now be used as a means of furthering the exchange of reciprocal treaties.

However this may develop, let no foreign bicycle manufacturer deceive himself into believing that the tariff is a factor in keeping his productions out of this country. Only when he is able to manufacture bicycles as good and sell them at lower prices than American manufacturers has he even the shadow of a chance.

In the light of to-day, when it seems so plain that for even home markets none can produce more economically than these Americans, the folly of howling at the tariff, and incidentally the folly of our maintaining it, should be patent to all who are not blinded by prejudice, patriotism or party politics.

We do not blame the Wilsons and O'Reillys for criticising our tariff—it deserves criticism and denouncement—but their criticism is on the wrong tack.

"I have not received the *Bicycling World* since the issue of August 22. As it has become indispensable to my business, please attend to the matter at once, sending me back numbers, as well as arranging for the future."—(Alex. S. Perry, manager Perry Cycle Co., Cuthbert, Ga.)

There's a niche of more or less fame still to be filled by one of the women who love to see themselves in print: The credit of being the first to appear in public on a motor bicycle is still unclaimed.

ECHOES FROM ENGLAND

Which Deal With Motocycles — Singer Makes a Wise Move.

London, September 4.—In these days, when nearly all the high-speed motors are bought from the De Dion Company, it says a good deal for the opinion which some of the English manufacturers have of the future of the motor bicycle, to find that at least two firms have announced that they are now making motors of small power, especially suitable for these machines. The Century Motor Company, Ltd., have just put such an engine upon the market, and it must be remembered that this company has been one of the most successful in the manufacture of small cars, which have so nearly resembled motocycles in outward appearance that they have confused witnesses in the law courts. Mr. Begbie, who is an old road-racing cyclist, has control of the company, and he should know what the motocyclist requires. It must be remembered that it is the old and worn-out speed man who takes most kindly to the motocycle in this country up to the present, and he sets the fashion, which others will follow later.

The Simms Manufacturing Co., Ltd., have also a motor specially suitable for bicycles. This engine follows much upon the lines of the firm's ordinary type, which is used occasionally upon cars, and is such a good pattern that it is deserving of more attention than it receives. Both the small and larger motors are fitted with the "Simms-Bosch" ignition, which dispenses with the use of batteries or accumulators and is a great saving of trouble on this account.

Messrs. Singer & Co., Ltd., have just put upon the market a machine which they called the "Tri-Voiturette." In this they employ their motor-wheel, and, in fact, the whole production is simply a slight modification of the motor tricycle made by the firm. A basket seat is attached to the rear, and this is said to be more comfortable than the seat placed in front of the ordinary quad. The drawback seems to be that the driver is rather boxed in, since he cannot dismount easily, owing to the presence of the seat and passenger at the rear of the machine. The firm also make a modification of the device, in which a carrier basket takes the place of the rear seat, so that the machine can be used by tradesmen for the delivery of light goods. Providing that the basket can be made sufficiently large to carry a fair amount, I should say that there is a big opening for this design, as the motor tricycle is not a difficult machine to manage, and, in addition to this, the cost is low compared with that of even a voiturette car, which latter cannot be considered as at all suitable for tradesmen's use.

MEASURING HORSE-POWER

The Apparata and Two Methods Employed and How They Differ.

The brake horse-power test is carried out by means of a brake applied to the fly-wheel of the engine to be tested.

The brake consists of two or more lengths of hemp cord passed round the wheel and kept in position by blocks of wood so as not to allow of the cord leaving the fly-wheel rim. The cord only passes over the upper semi-circumference of the fly-wheel rim. At one end it is provided with a hook upon which a known weight is hung. The other end is attached to a spring balance, whose lower end is attached to the ground, the cord passing up to the fly-wheel rim quite vertically. The brake is loaded by means of the weights, and it is essential that some stop or other should be used so as to prevent the weight being thrown over the fly-wheel if the engine is started too fast for the weight applied.

Having arranged this tackle, the engine should be started slowly and the fly-wheel turning against the weight that is in a direction to pull it up. Then as the speed of the engine increases the weight should be increased until the engine is running at its normal speed and taking a full charge of gas at each suction stroke and firing every other stroke, or if it is a steam engine with the full boiler pressure, and the throttle full open. When this stage is arrived at the following data should be noted down after very careful examination:

S. Reading of spring balance in pounds.
W. Total weight on brake (which will include all of the rope and tackle on that side which is not in contact with the fly-wheel).

R. Diameter of brake wheel in feet.

N. Number of revolutions.

Then we use the following formula:

$$\frac{R \times 3.14 \times N \times (W-S)}{33,000} = \text{B.H.P.}$$

Let us take a suppositious case.

Engine runs at 160 revolutions; weight on brake, 260 lbs.; spring balance reading 15.5 lbs. The diameter of fly-wheel, 4.602 ft. From this we get our calculation, using the above formula:

$$\frac{4.602 \times 3.14 \times 160 \times (260-15.5)}{33,000} = 15.1.$$

So that the engine running at a speed of 160 revolutions per minute will give out at the fly-wheel rim 15.1 horse-power.

THE I.H.P. TEST.

The I.H.P. test is carried out by means of an indicator, which is an instrument for accurately determining the pressure in the cylinder at any part of the stroke. If we can get the mean of the varying pressure during

a stroke, we can, with other data, determine the horse-power. The formula we use is known as the "Plan" formula, and is as follows:

$$\frac{P \times L \times A \times N}{33,000} = \text{I.H.P.}$$

P represents mean pressure as given by the indicator.

L represents length of stroke in inches.

A represents area of piston in inches.

N equals the number of revolutions per minute, or if a gas engine is being tested, impulses per minute.

Let us take another suppositious case, and let us suppose we are testing the same engine as before.

We get the mean pressure from the indicator, and note down the following conditions: P = mean pressure = 80.5 per sq. inch.

L = length of stroke = 18 inc. = 1.5 ft.

A = area of piston = 92×0.7854 (the diameter of piston—which is 9 ins.—squared and multiplied by 0.7854 gives its approximate area).

N = revolutions per minute = 160.

As this is a gas engine, and explodes only once in two revolutions, N will equal $160 \div 2 = 80$.

From these figures and using our formula, we get the calculation—

$$\frac{92 \times 0.7854 \times 1.5 \times 80.5 \times 80}{33,000} = 18.6$$

which is the indicated horse-power.

As will be seen, says the Cycle Trader, we have taken a typical case and worked out the B.H.P. and the I.H.P. of a large gas engine. The B.H.P. comes out at 15.1, while the I.H.P. comes out at 18.6. So that the 3.5 h. p. is absorbed in the engine mechanism itself, giving a mechanical efficiency of 81.2 per cent of the theoretical. This is generally considered by gas-engine builders a very satisfactory figure.

THE INDICATOR.

The mean pressure which has to be taken from the inside of the cylinder is obtained by means of the indicator, a very simple instrument, which, however, wants careful handling.

The indicator consists of a cylinder and piston, the bore being of a size which will give a piston area of, say, two square inches. The piston is free to move up and down in the vertical cylinder, and the bottom of the cylinder is connected by a union joint to any suitable opening into the engine cylinder rearward of the part of cylinder swept by the engine piston. A cock is provided to shut off communication between the engine cylinder and the indicator cylinder. The piston is connected by links to a lever having at its end a pencil so placed as to come in contact with the outside of a vertical cylinder capable of being revolved on its vertical axis.

If the piston of the indicator is moved up or down in its cylinder, the pencil will trace a vertical line upon the cylinder if stationary, or a curved or inclined line if it is revolving. A means of attaching a paper or card to the outside of the revolving cylinder

is provided, upon which the pencil can trace the diagram. On the top of the piston in the indicator cylinder is placed a helical spring which will deflect a known distance for a known pressure. So that if the engine and indicator cylinders are put into communication with each other while the engine is running the piston will rise and fall with the pressure in a known ratio and the length of upward travel of the piston, and consequently the pencil on the diagram will indicate certain known pressures in the engine cylinders which can be measured on the card.

As the pressure in the cylinder is greatest at the beginning of the stroke and should fall to atmospheric pressure or nearly so at the end, we cannot get the mean pressure without being able to tell the pressure at every part of the stroke or strokes. This can only be done by traversing the indicator card—by revolving the drum—through a space and at a varying rate, which will reproduce the varying travel of the engine piston. This is done by attaching a cord to a pulley on the drum, and attaching one end of the cord to one of the reciprocating parts of the engine such as the trunk piston, or cross-head if the engine is of the steam type. As the drum would have to be of such a diameter as to accommodate a core of over the length of the engine stroke, it has been found advisable to use a reducing gear which gives to the cord attached to the indicator pulley a less travel than that attached to the engine cross-head. This is done in a variety of different ways, and a travel of about five inches is all that is required for practical purposes. A spiral spring returns the drum to its original position on the return stroke of the engine.

We can now get with this arrangement a diagram whose height will represent pressure, and whose length will represent the piston stroke. This diagram generally takes the form of a figure similar to a man's foot, and knowing the tension of the spring for a given deflection we can calculate from it all the horse-power which, theoretically, the engine shall give, less friction.

Record in Exports.

Exports from the United States in the year ending August 31, 1901, were \$1,500,618,236. This is the first time in the history of our export trade that the figures for a twelve months' period have crossed the billion-and-a-half mark. For the corresponding months of 1900 the record was \$1,399,000,520.

An Opening in Amsterdam.

The Holland Industrial Cycle and Automobile Association has organized an international exposition for the month of February, 1902. It will be held at Amsterdam.

"The Motor: What It Is and How It Works." See "Motocycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York. ***

Fittings That Fit.

THE CROSBY COMPANY . . .	Sheet Metal Parts.
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STRAIGHT MFG. CO.	{ Springfield Hangers, One Piece, Three Piece.
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TELL YOUR TOWNSMEN

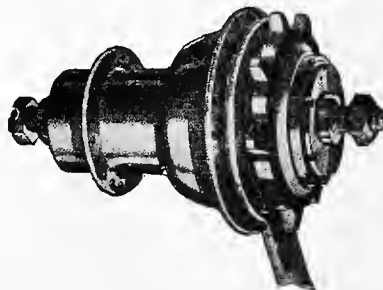
HOW IT IS POSSIBLE

TO PARTAKE TO-DAY OF THE JOYS OF THE MORROW

PAINT THE JOYS IN THEIR PROPER COLORS—

the delights of flying down hill in perfect safety—the exhilaration that comes of coasting in this crisp, cool air—the tingling cheek, the exuberance of spirits, of forest and mountainside, the spiration, the — but you know

Show your townsmen how the pneumatic tire—show how it adds cling and more to the safety



of the blood, the glow of the the beauties of the red and gold freedom from dull care and per-the rest.

Morrow is as essential as the as much to the pleasure of cy-of it.

SEPTEMBER

is the month of months in which to tell the story. If it is told rightly, there's many a welcome dollar will come your way before snow flies.

ECLIPSE MANUFACTURING COMPANY,

-

ELMIRA, NEW YORK.

AGAIN THE TARIFF!

Once More the Britons Twang the String and Sing the Mournful Story.

"Another writer is toeing the line of my little procession of converts to anti-free trade, in the person of one E. J. O'Reilly, who contributes a very entertaining article to the Cycle Times on the subject of 'Brother Jonathan,' in the course of which he adopts the arguments that I have more than once used in these columns, pointing out that free trade on the part of the English, combined with a heavy tariff on the part of the Americans, was the cause of the English cycle-trade being killed across the Atlantic," writes the veteran A. J. Wilson in the Irish Cyclist. "I cordially echo my confrere's plaintive inquiry of 'Why cannot the Americans bear their honors with some little show of modesty? Why can they not refrain from the brag and bounce that are so tiresome?'"

"Periodically we read, in American papers, blustering articles commenting upon the played-out effeteness of John Bull, and crying cock-a-doodle-doo over the fact that the English cycle is now unknown on the American market; and when we gently point to the tariff as the cause thereof, the American journalist shrieks with derision at such an absurd idea, and informs his readers that the tariff has nothing to do with it, but that the English cycle has been driven out of America solely by the transcendent superiority of the American bicycle. But it is not explained why it is that the American bicycle in England is principally known as synonymous with cheap nastiness.

"If the American bicycle were equal to the English—let alone superior—our free-trade principle would have enabled the American maker to overrun such insignificant little countries as the British Isles with his goods; whereas everybody knows that the attempt to establish American cycles upon the British market has been a conspicuous failure.

"Open the door of American trade by abolishing the tariff, and the English bicycle will soon re-establish itself in the favor of such American cyclists as can appreciate best quality.

"The odd feature about the American cycle trade, as compared with ours, is that at first the American-made bicycles differed from the English is being extremely heavy and extremely dear. This was the case right up to the time, twelve years ago, when a party of thirty American tourists landed at Queenstown and toured to Dublin, en route for England and the Continent; only two or three of them brought American bicycles with them, the remainder having ordered English machines to await them at Cork; and the ponderosity of the transatlantic bicycle was very marked, although for the most part its manufacture—especially as re-

gards the spring-framed machines—was most excellent. Prior to that, several attempts had been made to introduce the tall bicycle of American make on to the London market, but in vain. I was one of the few Englishmen who rode an American wheel in those days; it was very strong, but very heavy. Since then American methods have totally changed, and from one extreme they have gone to the other, so that American bicycles now are cheaper and lighter than European makes.

"On the other hand, the French manufacturers until recently inclined toward the light side, but of late their wares have been sadly deteriorating. It appears that all the best workmen have gravitated into the motor trade, and the bicycle trade in France is being neglected—to the advantage of imports



NEW YORK BRANCH: 214 216 WEST 47TH STREET.

from England. But the German bicycle has always been notorious for its hopelessly rubbishy character. German bicycles have been the incarnation of gaspipe and solder from the first."

Instruction in Cycle Making.

Theoretical and practical instruction in cycle work, after many unsuccessful attempts to introduce the subject, now forms part of the curriculum of the Coventry (England) Technical Institute. The subject is only open to those actually engaged in the trade as skilled workmen, and in no case is a student allowed to take the practical course without attending a class in theory and in drawing. The instruction at first will be necessarily as simple as possible, yet at the same time practical. In the workshop practice special stress will be laid upon the construction of parts and upon milling operations, as well as upon the construction of the frame and the wheel, and the grinding and lapping of hardened parts with special reference to the production of hub spindle and ball race.

NOISE SUPPRESSERS NEXT

One of Philadelphia's Wise Men Predicts the Next Step of Invention.

Hardly any expression is more common in general conversation than that of wonder as to what will be the next step of invention. We have done so much, indeed, that it is not uncommon to hear it declared dogmatically that we have reached the limit, which means generally that we shall never do things—whether the "thing" be the purchase of a spool of cotton or a little journey across the continent—very much quicker than at present. It is quite possible, indeed, that we shall not, and it is doubtful if we shall be very much better off if we discover that we can, says the Saturday Evening Post.

The real problem for inventors, considering the greatest good to the greatest number, is to enable us to move not more quickly but more happily; to diminish, first of all, the noise and the resulting nervous tension with which modern progress has replaced the red Indian at the door of the stockade or the masked robber at the door of the stagecoach. The need of such invention—in other words, a public appreciation of possible flaws in the theory that rapid motion is in itself progress and involves a necessary sacrifice of the pleasures of the eye and the satisfaction of the ear—has here and there become already sufficiently manifest to make gardens of shrubs and flowers an essential part of more than one line of railroad stations, to inaugurate the practice of sprinkling the tracks with oil in order to lay the dust and insure more quiet running, to pave city streets with asphalt in place of cobblestones, to restrict heavy teaming to certain thoroughfares, to legislate against tuneless street music, and to start crusades against the vocal atrocities of those who cry their various wares in public highways.

The fact is, the American people stir in a sleep in which they have been dreaming of a material, one-sided progress, and many of them are already awake to the fact that the true touchstone of life is to do a thing not only expeditiously, but without either a waste of nervous tissue or an excess of apparent effort.

Let the awakening become general and the corporations—which, when all is said and done, depend upon public opinion and are accustomed rather to approve than to oppose real improvement—will inevitably respond to this very quickening in the conception of material progress. The link between rapid transit and satisfactory transit is the invention which shall make speed comparatively noiseless, and it is safe to say that it would find a ready welcome in the office of any of our important transportation companies.

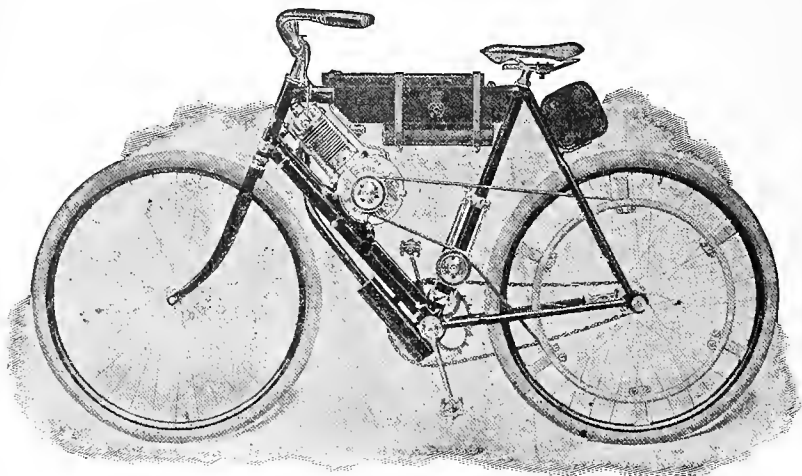
"How to Drive a Motorcycle." See "Motorcycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York. ***

THE MARVEL of the ENDURANCE RUN from NEW YORK to BUFFALO

WAS THE

AUTO-BI

There were four (4) AUTO-BIES started in the Endurance Run, and they all went through to the finish. The AUTO-BIES made more controls than all the other motor bicycles combined, and all along the route received the congratulations of those who went through on the vehicles.



If you want to know what a fearful condition the roads were in, read the news columns of this publication and you will appreciate the awful test to which the machines were put.

The Endurance Test furnished another proof that the AUTO-BI is the only motor bicycle worth considering. One of the AUTO-BIES used in this run was the machine that made the run from Buffalo to New York the week previous, and was the first motor cycle that ever crossed the State of New York.

There are many weeks to come of glorious riding. If you want to enjoy them in all their glory, buy an AUTO-BI and go skimming through the land.

E. R. THOMAS MOTOR CO., Inc.,

106 BROADWAY, BUFFALO, N. Y.

The Equitable Distributing Co.

(Incorporated.)

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(Late Manager Record Pedal
Mfg. Co.)
Boston, Mass.

To all Legitimate New England Bicycle Dealers:

If you are not already acquainted with the objects of this company and its advantages to you, write at once for full and definite information.

170 Summer St.

The Equitable Distributing Co.,

Boston, Mass.

RACING

Kramer is now champion of the N. C. A., having clinched his title to the championship of 1901 by scoring a signal victory in the five-mile race at Hartford on the 16th inst. He also made the fastest time on record with single pacing—10m. 55 2-5s.

The score up to this meet was: Kramer, 72; Taylor, 64; Lawson, 50. By his victory Kramer increased his score to 80 points, while Taylor, who finished third, scored two points, making his total 66. As there is only one more meet on the grand circuit, the winner of which will receive eight points, it will be impossible for Taylor to catch the leader, and Kramer is therefore the 1901 champion.

A mile from home Fenn started to go to the front, and the struggle began, the men sprinting as if it was the last lap.

Rounding the lower turn, McFarland and Fenn fell. The field scattered, but Taylor went to the front, with Kramer trying to go by. Riding wide on the turn, Taylor permitted Kramer to get on even terms, after which Taylor was unable to get up. Kramer beat Kemble by a length, while Taylor was third, losing his pedal coming up the home stretch.

Jimmy Michael has but to conquer Walthour to make clear his claim to the middle distance championship.

During the early part of the season the supremacy of Elkes was unquestioned. Then Michael was taken hold of by Tom Eck, the veteran trainer, who accomplished wonders in a comparatively short time. McFarland, Stinson, Moran, Pierce, McEachern and Champion have also fallen like so many tenspins before the midget from Wales.

The dishpan track of the Garden type presents no terrors nor difficulties to Michael. In fact, the little fellow seems at his best on its almost perpendicular turns. His career for the past month has been a succession of victories, without a single defeat.

On that track, Monday, September 16, Michael defeated Harry Elkes in a fifteen-mile motor paced race in most decisive style. Setting a terrific pace from the start. Michael steadily gained on his opponent; his advantage at the finish was three and a half laps, or more than a third of a mile. Time, 24.43. Times for one and two miles, 1m. 33 1-5s. and 3m. 8 4-5s., indoor records.

The twenty-five-mile motor paced race which was to have taken place between Elkes and Walthour at the New Haven Coliseum September 12 did not take place, and as a result the men will make application to have the track suspended; in addition, the Glens Falls boy will bring suit against the management, charging them with endangering his life. It seems that at 7.30 Elkes appeared on the track for a work out. He had been riding a short time, according to his own statement, at a 1.35 clip, when the lights were suddenly put out and a serious accident narrowly averted. The management announced to the spectators that the track was too wet to ride on, and the race would be postponed indefinitely.

George C. Schreiber, the New York amateur, broke the world's record for the quarter at Vailsburg Sunday, September 15, covering the distance in 31 seconds flat. The old record, made by himself, was 31 2-5 seconds. M. L. Hurley not only won the five-mile race for amateurs after a sharp struggle up the track with Schreiber, but established a record for the distance—11.06 2-5. Thirty-five racers started in this event, and only fifteen of the riders managed to hold on to the end. The one-mile team race for professionals was won by Kramer and McFarland. Time, 2.22 3-5. McFarland also captured the one-mile handicap from the forty-yard mark in 1.56 2-5.

Jimmy Michael scored his ninth straight victory at the Hartford Coliseum on the night of September 10 by defeating Albert Champion in a twenty mile motor paced race. The Frenchman was unable to push Michael, and the victory was rather easily won. Michael gained a lap in the fourth mile. Three miles more were needed for the midget to gain his second lap. He seemed satisfied to

follow Champion until the seventeenth mile, when he went by with a rush, and at the end had a half lap more to his credit. Time for the twenty miles, 33:21.

Archie McEachern rode rings around Burns Pierce at Baltimore September 11 in a twenty mile motor paced race. McEachern took the lead from the gun and ran away from the Boston boy. At the end of two miles Pierce was lapped for the first time. He dropped another half lap at the end of four miles. McEachern was three laps ahead at six miles, four laps at nine miles and five laps at eleven miles. When near the finish he made one more lap on Pierce. McEachern's record for each five miles was: 5 miles, 7.36; 10, 15.27 1-5; 15, 23.27 3-5; 20, 31.21 4-5.

It was McFarland's night at Madison Square Garden, New York, on September 13. The lanky Californian won the twenty-five-mile unpaced race with a sprint which brought 5,000 spectators to their feet. McFarland and Bowler started the final sprint at the half, and were on even terms, when, rounding into the stretch for home, they locked handle bars. For a moment it looked as if the race was to end in a bad spill, but McFarland, by a superb effort, managed to break away, and dashed over the tape a winner by inches. Time, 62.03 3-5.

Michael easily defeated Major Taylor, best two out of three five-mile heats, motor paced, at the Providence Coliseum on the night of September 13, and incidentally cut the world's record from 7m. 26s. to 7m. 20s. in the first heat, which he won by 2¾ laps; he also created new marks for the third and fourth miles and equalled the record in the second mile. He rode the second mile in 1.26 2-5, the fastest time ever made in competition. The second heat was slower and more interesting, Michael winning by a lap in 8.14.

Five thousand persons saw Frank Kramer at Vailsburg, September 14, when he defeated Major Taylor and Iver Lawson in the mile match race in straight heats. Inches only separated the men in the first heat, but in the second Kramer won easily, with Taylor second; time, 2.12 3-5 and 2.08.

Coaster=Brake Troubles Eliminated

IN THE FINISHED FORSYTH.

Don't Close Until You See It.

SPECIAL FEATURES: Simplicity (fewer parts than any other), Lightness, Strength, Positive in Action, Fitted to either Chain or Chainless, Frictionless (coasts as easily as a chain wheel without any chain); above all, our own **Exclusive Special Feature**, Regulation of the Crank—throw can be adjusted without removing from the frame; no other Coaster-Brake on the market has this feature. **These few points ought to set you thinking. We have others. Better write us at once.**

FORSYTH MFG. CO., BUFFALO, N. Y.

Always Seasonable

BEVIN BELLS

Likewise

Bevin Trouser Guards

Bevin Lamp Brackets

Bevin Toe Clips

Many Patterns of Each

Bevin Prices—You Know!

If You Don't, Write.

Bevin Bros. Mfg. Co. East Hampton, Mass.

Business Founded 1832.

Uses of Aluminum.

Upon the use of aluminum in the metallurgy of steel we will not dwell, save to briefly remark that for this purpose alone many hundred tons are annually consumed, said J. A. Steinmetz in a paper on the subject read at the Franklin Institute, Philadelphia. It is added to molten steel in proportion of a few ounces to a ton in the making of ingots and billets. Larger tonnages are treated in the process of making steel castings by adding the aluminum to the molten mass before pouring. It has been found of advantage to insert small scraps of aluminum in the corners and cores of a casting mould. Tons of aluminum are yearly used for the making of patterns. The men at the benches can mould more forms in a given time and with less fatigue.

The patterns, weighing but one-third as much as brass, can be handled and stored more readily and cheaply, while the express charges upon return of patterns are greatly reduced. To-day aluminum is cheaper than copper, considered bulk for bulk. Copper is three and one-third times heavier than aluminum. This should open many channels of new applications for aluminum.

One thing that has figured seriously to the disadvantage of aluminum, and, indeed, has precluded it from many excellent fields of use, is the lack of a good, cheap, easily worked and permanent solder. The chief cause of the lack of success is the solder mashing and making a rough, dirty seam. If we desire to manufacture a given object of metal, we can make it cheaper in aluminum than in anything else excepting iron, lead or zinc, to which might be added in composite metals tinned and galvanized iron. The middle of the twentieth century will see steel and aluminum standing side by side as the most useful of the useful metals. Its greatest competitor will be tinned and galvanized iron. A most excellent use for aluminum is found in the making of steam-jacketed kettles and cauldrons for boiling syrups, fruit juices, honey and wax, as well as for acid work, for which the peculiar chemical properties of the metal specially adapt it.

In the electrical field aluminum is forging ahead rapidly into significant prominence. Comparative tests are now being made in the Chicago fire alarm service between copper wire and aluminum.

Aluminum powder and thin beaten leaf is now largely used. It has found an excellent use as a mixture for making photographic flash-lights, and in printing and bookbinding. It is also mixed as a paste for ink for printing cotton tinsel fabrics for Oriental trade.

WOLFF-AMERICAN BICYCLES.

STEARNS BICYCLE AGENCY, - Syracuse, N. Y.

COMFORT

with

SPEED

is the

CUSHION FRAME

Motto.

The CUSHION FRAME is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold **WITHOUT IN THE LEAST DETRACTING** from the **SPEED** or **POWER** of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy, "get there" riders who at first "scoffed" the idea of **COMFORT** being combined with "speed and power" in a bicycle.

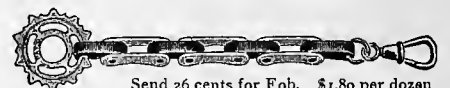
HYGIENIC WHEEL CO.,

220 Broadway New York.

Owners of the Cushion Frame Patents.

INDIANA CHAINS

EASIEST RUNNING. CONSEQUENTLY BEST.

EVERY LINK IS RIGHT.
PRICE IS RIGHT.

Send 26 cents for Fob. \$1.80 per dozen.

INDIANA CHAIN CO., Indianapolis, Ind.

BRANDENBURG BROS. & WALLACE, Salesmen.
New York—Chicago.

WANTS AND FOR SALE.

15 cents per line of seven words, cash with order.

FOR SALE.—Thomas Motor Cycle, used very little; good condition; \$135. J. W. Moon, Allegheny, Pa.

THOMAS MOTOR BI. new, not a scratch, \$100; "Mobile," victoria top, etc., all latest improvements, \$600; Milwaukee, victoria top, run about 350 miles, all latest improvements, \$600; a large stock of good steam and gasoline rigs taken in trade, for sale at all times, and we turn them quickly at close margins. Write us. Fisher Automobile Co., North Delaware St., Indianapolis, Ind.

MOTOR BICYCLES.

Advertiser has *working model*, patterns, drawings and many of the tools and dies for a well-designed, thoroughly practical motor bicycle; a machine which has been demonstrated and upon which no further experimenting is necessary. There is a substantial profit in building such machines, and a demand far in excess of the supply. Capital wanted to build the machines, or position wanted with good concern which will build them. Address "Motor," care Bicycling World.

HIGH GRADE

wheels must have the best equipments.

There is nothing that gives more value for the money than the use of the

MORSE TWIN CHAIN



NOISELESS IN MUD, WATER OR DUST AND ALWAYS EASY RUNNING.

The only chain having **Frictionless Rocker Joints**. Insist on having the Morse Twin Roller. Fits regular sprockets.

Send for Catalogue and Trade Price to

Morse Chain Co., Trumansburg, N. Y.

Persons's Sound Opinion.

"Close observation throught the country during the past twelve months has convinced me that the successful bicycle dealer of the past will be the successful motorcycle dealer of the future." says C. A. Persons, president of the Royal Motor Works. "At one time I rather thought the rapid development of the automobile industry would result in its carrying the motorcycle business along with it, to the exclusion of the bicycle dealer, but the present trend of events seems to suggest to the contrary. The success of the dealer will be measured to a certain extent by his intelligence and experience in handling the machine and by the intelligence and experience of those in his employ."

How to Deal With Price Cutters.

A Hamburg price cutter who offered tire covers for \$1.50 and inner tubes for 85 cents each, sold several inner tubes to a cycle dealer under the usual guarantee. The tubes were absolutely rotten and had to be returned after a few days' use. The question of guarantee then arose, the dealer claiming new tubes of proper quality, according to the guarantee, but the price cutter maintains that inner tubes are not tires, according to the meaning of the guarantee. The question will have to be settled by the courts, as the German Cycle Dealers' Association has taken the matter in hand, and intends to teach the price cutter a lesson.

On the Subject of Tire Speed.

"Across the pond" they have discovered that the adhesion of the inner tube to the cover has been a prime factor in reducing the speed and resiliency of double tube tires. So competent an authority as R. J. Meeredy gives it as his opinion that "the speed of the detachable tire is largely due to the air tube and cover being actually separate."

French Will Use Folding Bicycles.

Twenty companies of cyclists are to be added to the French Army next year. They will use a folding bicycle weighing 36 pounds, which may be strapped to the back when occasion requires.

HAND AND FOOT PUMPS,

Oilers, Repair Tools, Valves, Name-plates, etc.

Spelter Solder

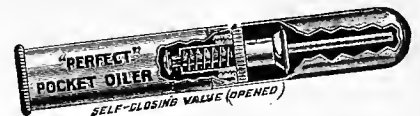
Sheet Brass, Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn.
Depots: 210 Lake St., Chicago.
425 Broome St., New York

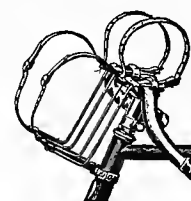
"PERFECT"



OILER.

For High Grade Bicycles. The best and neatest Oiler in the market. **DOES NOT LEAK.** The "PERFECT" is the only Oiler that regulates the supply of oil to a drop. It is absolutely unequaled. Price, 25 cents each. We make cheaper oilers, also.

CUSHMAN & DENISON, Mfrs., 240-242 W. 23d St., NEW YORK.



LAMSON-PETERSON LUGGAGE CARRIERS

The most serviceable made.

MEQUIER & JONES CO., Portland, Me.

NEVERLEAK STOPS LARGE PUNCTURES.

This is the only fluid that can be legally used in pneumatic tires. Suits now pending.

BUFFALO SPECIALTY MFG. CO.,
Buffalo, N. Y.



K-O-K-O to be on the go, get your tires from Kokomo. Made and sold by

KOKOMO RUBBER CO., Kokomo, Ind.

If You Desire Complete Motor Bicycles

You cannot get a better one than

THE MARSH.

If You Desire to Build Your Own Motor Bicycle

We can supply everything which you require for the purpose. Write us.

The Motor Cycle Mfg. Co., Brockton, Mass.

The Week's Patents.

682,385. Rotary Explosive Engine. James D. McFarland, jr., San Francisco, Cal., assignor of one-half to John Bruckman, same place. Filed Dec. 4, 1900. Serial No. 38,665. (No model.)

Claim.—1. A rotary engine, including a revolvable wheel, a central crank-shaft the crank whereof is eccentrically located with relation to the wheel-centre, cylinders having their outer ends pivoted to the wheel-rim, pistons movable in the cylinders and piston-rods connecting the pistons with said crank, said shaft having inlet and exhaust passages made in it, a plug fitting the shaft and having passages communicating with said inlet and exhaust passages, and passages connecting the inlet and exhaust passages with the cylinders, and igniting mechanism, and means for making and breaking contact to explode the gas charges.

682,387. Elastic Valve Attachment for Pneumatic Tires. Rolland J. Peet, Hamilton, N. Y. Filed April 29, 1901.

Claim.—1. In an attachment for inflating a pneumatic tire, the combination of a standard, a coil-spring on the standard, a nipple mounted to be moved on the standard having an air-passage for connecting with the rubber supply-tube and a rubber packing in the end of the nipple for receiving and making connection with the valve-stem on the tire substantially as set forth for the purpose as stated.

682,401. Repair-Tool. George W. Bolton, jr., Detroit, Mich. Filed Feb. 12, 1901. Serial No. 46,959. (No model.)

Claim.—1. A puncture-repair tool having its inner end shaped for insertion through a puncture-opening in the tube, means at said inner end for retaining strips or bands of material, and disengaging means at the inner tool end for freeing the latter from the bands or strips after the insertion of the tool within the tube and prior to its withdrawal therefrom.

682,423. Method of Making Lap-Weld Tubing. Peter Patterson, McKeesport, Pa., assignor to the National Tube Company, New York, N. Y. Filed Jan. 5, 1901. Serial No. 42,159. (No specimens.)

Claim.—The method of making lap-weld metal tubes which consists in forming a plate having a longitudinal rib, or thickened portion at its transverse centre and having substantially parallel faces from said rib to the edges of the plate, bending said blank plate into tubular form with its edges overlapping, and then heating and welding the overlapping edges of said plate whereby the walls of the tube are reduced to substantially a uniform thickness.

682,425. Saddle for Bicycles, etc. Francis B. Ray and Oscar S. Brandt, New York, N. Y. Filed Sept. 2, 1899. Renewed Feb. 26, 1901. Serial No. 48,987. (No model.)

Claim.—1. A bicycle-saddle having a spring-plate base, openings or cut-away portions to take up torsional strains, and one or more bridging plates, as and for the purposes set forth.

682,444. Fabric for Use in the Production of Air-Tight Tubing. Charles E. W. Woodward, Chicopee, Mass. Filed April 22, 1901. Serial No. 56,906. (No specimens.)

Claim.—1. As a new article of manufacture, a close-woven fabric or cloth for use in the production of air-tight tubing, comprising hard-wound warp-threads and loose-wound soft or fluffy woof-threads interwoven to form a sheet of true cloth having sub-

stantial strength both lengthwise and laterally, the strong warp-threads restraining internal pressure in the completed tubing and the soft woof-threads protecting the warp-threads against abrasion, and also forming a padding to resist puncture.

DESIGN.

35,075. Metallic Wheel-Rim. James Meccredy MacLulich, London, England, assignor to the Sirdar Rubber Co., Ltd., same place. Filed June 15, 1900. Serial No. 20,483. Term of patent 14 years.

Claim.—The design for a metallic wheel-rim, substantially as herein shown and described.

Recent Incorporations.

Jersey City, N. J.—The Barwest Coaster Brake Company—Principal office, Montgomery and Washington streets, Jersey City. Objects, manufacture automatic coaster brakes, etc.; capital, \$100,000. Incorporators: Franklin F. Weston, Perley M. Berry, Francis G. Coates, F. P. McManus and J. M. Enright.

Jersey City, N. J.—American Rubber Works—Principal office, N. J., Registration & Trust Company building, 525 Main street, East Orange, N. J. Objects, manufacturing rubber tires, etc. Capital, \$1,000,000. Incorporators—G. H. Huntington, I. S. McGiehan and John W. Wilcox.

Elmira, N. Y.—Elmira Arms Company—To manufacture, buy and sell bicycles, bicycle supplies, guns, accoutrements, etc.; capital stock, \$20,000.

The Retail Record.

San Jacinto, Cal.—Pierre Baker, reopening. Pasadena, Cal.—E. R. Braley, building addition to store.

New Britain, Conn.—Owen Barnard, damaged by fire; loss, \$200.

Greenville, Pa.—Bert Wheeler, sold out to Ernest Taylor and Clifford Jenks.

Wilmington, Del.—McDaniel & Kemp, dissolved; Albert E. McDaniel will continue.

New Haven, Conn.—Veru Bicycle & Rubber Co.; capital stock reduced from \$15,000 to \$8,000.

American Bicycles in Germany.

"The German dealer actually laughs when American bicycles are mentioned," writes Consul Ozmun from Stuttgart. "That trade has been practically killed by the too smart American manufacturer who a few years ago flooded this market with the worst lot of stuff that was ever put together, and it is very hard work for a dealer to sell even a first-rate wheel now, for they are as dear as or dearer than those of German manufacture. If American bicycle manufacturers really want to enter upon this market in a serious manner they must make their attempts at least appear serious. They must meet competition, undersell, give time, print all literature in the German language, secure good representatives and let them have the goods at prices which will cause them to push your goods."

"Motocycles and How to Manage Them"; 126 pages, 41 illustrations; cloth bound. \$1. The Goodman Co., Box 649, New York. ***

The Week's Exports.

Great Britain continues to figure as the chief purchaser of American cycle stuff, last week being no exception to the rule. No particularly heavy shipments marked the week, which closed Sept. 10; only Great Britain, Holland, Denmark and France made purchases valued at more than \$1,000. The record in detail follows:

Antwerp.—4 cases bicycle material, \$120.

Amsterdam.—15 cases bicycle material, \$575.

Argentine Republic.—1 case bicycle material, \$122.

British East Indies.—20 cases bicycles, \$374.

British Guiana.—1 case bicycle material, \$74.

Brazil.—2 cases bicycles, \$50.

Bremen.—3 cases bicycles, \$125; 1 case bicycle material, \$10.

British West Indies.—21 cases bicycles and material, \$898.

Cuba.—8 cases bicycle material, \$332.

Copenhagen.—2 cases bicycles, \$30; 25 cases bicycle material, \$1,075.

Christiania.—2 cases bicycles, \$50.

Chili.—1 case bicycle material, \$257.

Dutch Guiana.—3 cases bicycle material, \$208.

Ecuador.—2 cases bicycles and material, \$79.

Genoa.—5 cases bicycles, \$121; 9 cases bicycle material, \$445.

Gothenburg.—1 case bicycle material, \$10.

Glasgow.—2 cases bicycles, \$39.

Hamburg.—8 cases bicycles, \$351; 1 case bicycle material, \$120.

Havre.—32 cases bicycle material, \$1,094.

London.—103 cases bicycles, \$1,075; 8 cases bicycle material, \$465.

Liverpool.—53 cases bicycles, \$1,170; 5 cases bicycle material, \$327.

Lausanne.—15 cases bicycles and parts, \$400.

Rotterdam.—23 cases bicycles, \$1,122; 23 cases bicycle material, \$740.

Southampton.—1 case bicycles, \$100; 28 cases bicycle material, \$842.

Uruguay.—3 cases bicycles and material, \$115.

Going West?

If you purchase your tickets via the Nickel Plate Road, the shortest route between Buffalo and Chicago, you will secure the best service at the lowest rates. Three fast thru express trains daily, in each direction, between Buffalo, Erie, Cleveland, Ft. Wayne and Chicago, making close connections at the latter city with the fast trains of the Western roads. The trains on the Nickel Plate Road consist of elegant vestibuled day coaches, sleeping cars of the latest models, and Nickel Plate dining cars serving famous individual club meals at rates from 35 cents to \$1. Thru sleeping cars are also run from Boston, New York, Albany, Syracuse, Rochester, Scranton, Binghamton and Elmira, and many other Eastern cities.

If your ticket agent cannot give you the information desired, address F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y. ***

The Bicycling World

AND MOTOCYCLE REVIEW.

In which is incorporated "The Wheel and Cycling Trade Review" and the "American Cyclist."

Volume XLIII.

New York, U. S. A., Thursday, September 26, 1901.

No. 26

COLUMBIA HARD HIT

A. B. C. Orders That Department Discontinued—Pressure Applied to Effect Revocation—Securities Affected.

Quite the most sensational move made by the officials of the American Bicycle Co. in many months was made on Saturday last, when orders were issued discontinuing the Columbia Sales Department at Hartford.

Information reached the employees of the department on Monday and consternation ensued. The following day the matter became public property and set all Hartford agog, and it is fair to say that even in the trade nothing was considered more unlikely than the discontinuance of the Columbia department.

Only the week previous it had absorbed the Monarch department, thus disarming even the remotest suspicion of such action. The fact that Col. Albert A. Pope's son is the head of the department, coupled with the Colonel's position in the executive office, made the report difficult of belief.

The flurry that resulted may therefore be easily imagined. Those most affected made a beeline for headquarters in New York, and late on Monday the rumor went abroad that the order had been rescinded. There is reason to believe, however, that the rumor is untrue.

It is known that tremendous pressure has been brought to bear, and that the matter is being reconsidered is practically admitted at headquarters, where the effects of the flurry are ill concealed. While everyone connected with the executive office is guarded and non-committal in speech, from what they say it is apparent that a decision will be reached before the close of the week.

As matters now stand, however, the Columbia department has thirty days in which to wind up and complete the transfer of its affairs and effects. The factory, however, will not be affected and will continue in operation.

It was at first stated that the Columbia

interests would be taken over by the Crescent Sales Department; this was followed by a report that all sales departments would be discontinued and two new ones be instituted, one in New York, the other in Chicago, which would handle the entire business of the company. This is denied by an official, who, however, declined to forecast or be drawn out as to either the probabilities or possibilities of the case.

Everything indicates agitation and apprehension. No one can even guess what the next move may be, and nothing that may occur need excite surprise.

All this week the securities of the A. B. C. have indicated a disturbed and apprehensive state of affairs. On Monday the preferred stock fell to 10 bid, 15 asked, and the common to 1 $\frac{7}{8}$ bid, 2 $\frac{1}{4}$ asked—low water marks in both instances. The stocks have since shown no recuperative power.

Single Tubes Stewing Again.

According to reports that are circulating, developments of considerable importance are brewing in the tire trade. It is, of course, no great secret that certain Tillinghast licensees have had their licenses cancelled and are doing business as if nothing of the sort had ever existed, but this is only one of the issues involved.

While they admit that there is more doing than appears on the surface, none of those interested who were approached by the Bicycling World would talk in a definite strain.

When questioned, Colonel J. L. Rice, vice-president of the Single Tube Co., admitted that there had been "some cancellations." Just whom they affected he would not say, but he added that he "believed the differences would be adjusted."

"Was the failure to pay royalties the cause of the cancellations?" he was asked.

"That was one of the things that entered into the matter," he replied. He said that no meeting had been called or was in prospect, and created the impression that the situation was merely "a difference between gentlemen" of no serious moment and easy of solution.

From another source it is learned that Colonel Rice states the case with diplomatic mildness.

SEPARATION ARRANGED

Thomas Interests Divided—He Retains Motor; Auto-Bi Taken by New Company.

The Thomas motor and the Thomas Auto-Bi have amicably arranged a "limited separation."

Henceforth each will stand on its own bottom, that is to say, while the Auto-Bi will continue to be equipped with the motor that made it famous, it will hereafter be marketed by a new creation, the Auto-Bi Co., of Buffalo, which takes over the Thomas business so far as it relates to motor bicycles.

The E. R. Thomas Motor Co. will hereafter devote itself exclusively to the manufacture and sale of motors, the range of which will be considerably enlarged. The Thomas people have already supplied motors to not a few cycle manufacturers, and the number is likely to be considerably increased. Bicycle motors will be, however, but one of many types that will be manufactured. They will be made for automobiles, launches and all similar uses and of the following horsepowers:

Air cooled, 1 $\frac{1}{2}$, 1 $\frac{3}{4}$, 2 $\frac{1}{4}$, 3 $\frac{1}{2}$.

Water topped, 2 $\frac{1}{4}$, 3 $\frac{1}{2}$.

Water jacketed, 3 $\frac{1}{2}$, 5.

Water jacketed twin cylinders, 7, 10.

Incidentally the Thomas Co. will guarantee their motors to the retail purchaser, assuming all responsibility, as is done by tire makers and other accessory manufacturers.

Knepka was Knocked Out.

A strange story of assault and robbery was told last week by Charles H. Knepka, a bicycle dealer at Norwich, N. Y. He says that a man came into his store to purchase a tire, and tendered a \$20 bill in payment therefor. As he turned to the money drawer to make change Knepka alleges that the stranger grabbed the roll of bills he took from the drawer, amounting to over \$100, and attempted to take it from him. Meeting with resistance, the robber struck him a blow that rendered him unconscious, seized the money and disappeared. When Knepka came to he informed the police of his misfortune, and a search for the malefactor was at once instituted. So far, however, it has been without result.

BENNETT COMES TO BUY

Incidentally he Throws Some Light on Existing Conditions In Great Britain.

G. A. A. Bennett, manager of the Universal Trading Co., Birmingham, England, reached New York late last week with an eye open for any good things the American market may hold. He is particularly interested in motor bicycles, and it will not be his fault if he fails to connect with one before sailing for home on Wednesday next.

Mr. Bennett impresses one as an aggressive tradesman and a good fellow who "knows his book" thoroughly. His bumps of logic and fairness seem better developed than those of most Englishmen, and he is ready to see and admit the merit of not a few American innovations which many of his countrymen are prone to deny. From what he says the Morrow coaster-brake is evidently the most prominent American article on the English market at this time. He himself sold four thousand of them this year, and would have sold more had they been obtainable. He also sold some twenty-eight thousand Bowden rim brakes, which have enjoyed a great run in England, despite the yards of wire that would make them distasteful over here. Asked about the Britons' predilection for brakes of the sort, Mr. Bennett could not find a sufficient reply. He simply knew they wanted them, and he sold them to all comers. For himself he found a coaster-brake all that was required; he would not attempt to explain why the tendency ran to a hub coaster and rim brake.

The idea prevalent in this country that there are no really low-priced bicycles made in England was, he said, a very wrong one. Bicycles at \$15 were being made and sold in considerable quantities, while Rudge-Whitworth, the most progressive firm over there, and the one with the greatest output, produce machines at \$40 and \$50 that have enjoyed a large sale, the \$40 article in particular, although the agent's discount was not very generous from the American standpoint. The assembling trade is a big factor abroad, and has hurt the big makers who still expensively make all of their own parts and do not buy anything of the parts manufacturer, as is the case here.

"Does the English trade really believe that but for our tariff they would still be able to sell bicycles in this country?" Mr. Bennett was asked.

He answered with an emphatic "No!" and said it was generally understood and admitted that the difference in manufacturing cost was so greatly in favor of the American trade that no foreigner could compete, tariff or no tariff.

"Why, then, do the English cycling journals continually maintain to the contrary?"

"I'll be damned if I know," Bennett re-

sponded, laughingly. "You'll have to ask me something easier."

"Then the British trade does not share such views?"

"Absolutely not."

Bennett anticipates a considerable drop in the price of Dunlop tires within the next few days, which will afford the English trade some relief. While on the subject he remarked how many English riders would use single-tube tires on American bicycles, while they would not buy such tires if they sold at a penny per pair.

Extent of Cycle Improvement.

"The present day bicycle seldom gets the praise that it deserves," remarked an old rider to the *Bicycling World* man. "It is thoroughly reliable and rarely needs attention. These two facts stand out plainly, but very few riders ever give them a thought."

"The matter was brought to my mind by the sight of this old wrench," he went on. "I always carry it in the pocket of my riding clothes, and have done so for many years. Yet I never use it. I cannot recall a time this year when I had to take it out. Certainly there has been no occasion to use it on my own machine. That has always carried me through without being touched."

"Yet I am a stickler for having things just right. A loose nut or bearing, or an imperfect adjustment of any kind, is something that I abominate. Years ago it used to be necessary, in order to keep a machine right, to watch it pretty closely and to make frequent use of a wrench. This was outside of breakages, which were also of much more frequent occurrence."

"But, as I have said, all this has been changed. As far as any real necessity for it goes, I might as well leave my wrench at home. Perhaps I would do so if I had not got into the habit of carrying it always."

"This great improvement, however, is lost on the majority of riders. On the rare occasions when anything goes wrong they damn the machine just as heartily as if this were an everyday occurrence."

Count of Coaster-Brakes.

Despite the popularity of the coaster-brake and the hundreds of thousands that have been sold, it does not require particularly rigid investigation to upset preconceived estimates of the number in use. Wherever cyclists congregate it will be found that the coaster-brakeless bicycle is disproportionately large.

For instance, a count of 200 bicycles by a *Bicycling World* man on the Riverside Drive cycle path, New York, on Sunday last, developed that but 28 of them were fitted with coaster-brakes. Of the 200 bicycles 39 were ridden by women, of whom but one possessed a coaster-brake.

The owners of the bicycles were a representative lot, and included all ages, classes and conditions. From the appearances of the bicycles, not more than one-third were of this year's manufacture.

FLUID WAR IS OVER

After Years of Strife Combatants Reach an Agreement—Patents Exchanged.

After years of crimination and recrimination, threats and counter threats, suits and counter suits, the makers of tire fluid have buried their differences, and the much-mixed litigation is off the calendar, forever and aye, it is believed.

After all the others had succumbed, surrendered or in some way made their peace with the ever-aggressive Buffalo Specialty Mfg. Co., the G. W. Cole Co. maintained its rights and position as a belligerent; when last the public saw them the two were waving patents and glaring at each other in a fashion that indicated more fees for the lawyers. But from some cote there flew a dove, olive branch in beak, and, lo! peace was declared and has settled where only turmoil and bitterness reigned before.

Under the terms of settlement the Buffalo Co. remains alone and without further dispute the manufacturers of the much-disputed tire fluid, and all such fluid will, of course, continue to be their "Neverleak," Cole & Co. agreeing to discontinue the manufacture and sale of their "Stop-Leak"; they have also assigned to the Buffalo people a patent on collapsible tubes for tire fluids that is pending. On their part the Buffalo Specialty Mfg. Co. agree to cease the manufacture and sale of "Baby" and "Neverslip" spoke grips, the patent and all rights that accrue being assigned to Cole & Co.

All parties concerned are, of course, satisfied with the adjustment of affairs, and with the opposing big guns removed the Neverleak people will now be free to even more determinedly pursue the smaller infringers of their tire fluid patents.

The Late President's Cycling Interest.

While the late President McKinley never figured as a cyclist, he once "dabbled" in cycling to the extent of signing a cycling club's application blank and wearing the badge of a cycling organization. It happened during the annual session of the L. A. W. National Assembly at Columbus, Ohio, in February, 1892.

At that time Mr. McKinley was Governor of Ohio, and tendered a reception to the visiting wheelmen. A report of the occurrence describes him as "a rotund, chubby faced man with a pleasant expression and manner and a warmth of handclasp. He shook hands cordially with every one in turn, and chatted pleasantly with quite a number. W. Fay Tuttle had him affix his signature to an application for honorary membership in the Chicago Cycling Club, and Will Herriek (now Morgan & Wright's right hand man), not to be outdone, pinned a Century Road Club badge on the Governor's coat lapel."

COL. GEO. POPE SWEARS

In an Affidavit he Tells Industrial Commission the Story of the A. B. C.

It has just developed that the cycle trade has not escaped the attention of the Federal Industrial Commission, which has been devoting itself to an investigation of the be-millioned corporations and combinations of corporations that have sprung up during the last few years.

The American Bicycle Company was, of course, the subject of the commission's inquiry. The reply takes the form of an affidavit sworn to by Vice-President George Pope that is full of interest to the trade. While it recites many details already known, it also throws light in several corners heretofore closed to all save the "insiders." The affidavit follows:

"The American Bicycle Company were incorporated on May 12, 1899. Their business is the manufacture of bicycles and automobiles. They bought the property of forty-eight concerns who had been engaged in making bicycles and bicycle parts. They did not buy the stock of previously existing corporations, but took conveyance of their real estate and personal property. The organization of the company was the work of A. G. Spalding. He personally bought the properties from the previous owners on such terms as he could make by private arrangement and sold them to the American Bicycle Company.

"The amount paid by Mr. Spalding for each plant was a private matter between him and the former owners, and was not known to the owners of the other plants. I believe, however, that the method and terms of payment were similar in all cases. The owners received in each case 30 per cent. of the appraised value of their property in cash, or, at their option, in 5 per cent. debenture bonds of the American Bicycle Company, at 92½; 30 per cent. of the appraised value in preferred stock of the American Bicycle Company, and 50 per cent. in common stock. Speaking roughly, the debentures and preferred stock represented the physical assets of all kinds, and the common stock represented the intangible assets, including patents, good will, etc.

"The plants were appraised for the purpose of purchase by the American Bicycle Company by the American Appraisal Company of Milwaukee, and their value fixed at more than \$9,000,000. The books, accounts receivable, etc., were gone over and valued by a chartered accountant, who had been auditor of the National Board of Trade of Cycle Manufacturers, and their value fixed at more than \$7,500,000. All these valuations were made as of the date of the last annual inventories of the several companies, which were generally made in the later months of 1898.

"The plants were taken over by the new

company near the end of 1899. The net earnings, made in the interval, were estimated at over \$3,500,000. This sum, added to the estimated values of the properties at the times of the last inventories, gave an estimated cash value of the total assets of more than \$20,000,000. The authorized capital of the American Bicycle Company is \$35,000,000 preferred and \$45,000,000 common stock, of which has been issued \$10,000,000 preferred and \$20,000,000 common stock, and there has also been issued \$10,000,000 5 per cent. 20-year debentures. The debentures were underwritten at 92½ and were taken at that rate by the underwriters, so far as they were not taken in payment for property bought. When the promoter has turned over to the sellers of the property so much of the preferred and common stock as was required by his bargains with them, the remainder was left in his hands as profit.

"The earnings of the properties before consolidation were stated to have been, in 1895, about \$5,119,000; in 1896, about \$7,763,000; in 1898, about \$3,329,000. The net profits for 1899 were estimated at \$3,894,000.

"The chief reason for desiring the consolidation was, perhaps, the great increase of competition in the trade. The business had been very profitable up to 1895, and in that and the following years a great number of new people embarked in the business. Many of them had no adequate capital. They went in expecting to make up their machines and sell them and get their money back in two or three months. They found that this could not be done. They were pressed for money, and they or their competitors were compelled to throw their machines on the market and get cash out of them, even if they got no profit. It is true that the strongest concerns in the trade still made some money every year, but with the constant and increasing cutting of prices a condition was approaching in which it was feared that even the strongest could make no profit. There was no cohesion in the trade, as there is in some older trades. There had been a Bicycle Board of Trade, but it had gone to pieces. Competition was of the cut-throat order. No doubt the example of the combinations that were forming in all kinds of business had also a great influence on the course of the bicycle makers.

"There are, however, important direct savings which the consolidation of ownership and management has effected. Important and expensive patent suits were pending between the different manufacturers. The introduction of community of interest with common ownership has put a stop to much patent litigation. There was also some further gain in permitting valuable patents owned by any one concern to be applied by all.

"There is an important saving in administrative expenses from the diminution of the number of officers. Each factory had formerly its complete executive organization,

usually a president, a vice-president, a secretary and a treasurer. These officers are all replaced now by a single manager; the full executive organization exists only at the central office. All buying is concentrated in the hands of one officer and his assistants. This not only saves energy and expense, as compared with the former system of independent buying for each plant, but it also enables the company to get the very lowest prices. There is a further saving in carrying a smaller aggregate quantity of supplies than was formerly carried by all the factories together. Centralized management of distribution makes this possible. By this means interest and depreciation of stock on hand are saved.

"Concentration of manufacturing activity has reduced the actual cost of production. The company have closed eight bicycle plants, besides turning two from the production of bicycles to the production of automobiles. At first thought it may seem that this saving is gained at the expense, in some degree, of the men formerly employed at the closed plants; but I am confident that if the American Bicycle Company had not been formed quite as many plants would have been closed through the failure of the companies who owned them. Moreover, while it is true that the men at the plants which have been closed had to go into other employment, the plants have been sold or leased, and are used for other purposes, and men are still employed there. Without regard to this consideration, I believe that about as many days' work are given in a year by the American Bicycle Company as were given by their predecessors. The employment is steadier. Before the consolidation there was much temporary shutting down on account of the excessive capacity of the plants. The factories would run full, and perhaps work overtime in the winter, but during the summer they would be almost idle. We have not been able to altogether do away with this condition, but are trying to make arrangements so that we can run pretty steadily throughout the year. Steady running is better for the employer as well as for the employee. If a factory turns off a large part of its force in the spring or early summer, it can get back only a part of the old men in the fall. It has to take on new men and teach them, and teaching new men is an expensive and wasteful business.

"The expense of selling has been considerably reduced by the consolidation. The American Bicycle Company advertises freely, but on account of the enormous size of their advertising contracts are able to get very low rates; even lower rates than the Pope Manufacturing Company and the Gormully & Jeffrey Manufacturing Company obtained, and they bought advertising at lower rates than any others established in the business. There has been some diminution of the number of traveling men. The company now employ in the busy

(Continued on page 512.)

ANOTHER CHAMPION ON A NATIONAL.

EDDIE "CANNON" BALD SAYS:

BUFFALO, N. Y., June 11th, 1901.

National Cycle Mfg. Co., Bay City, Mich.:

Gentlemen:—The Model 44 Cushion Frame Coaster Brake Chainless National Bicycle has been one of the most satisfactory mounts I have ever had. It makes an ideal wheel for business purposes, and I can recommend it to anybody desiring a complete bicycle embodying all the latest improvements.

EDDIE C. BALD.



F
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To tell the main virtues of
Fisk Tires would be to give a
catalogue of all tire virtues:

Speed,
Resiliency,
Ease of Repair,
Durability.

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BRANCHES:

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DETROIT: CHICAGO, 54 State St.; SAN FRANCISCO, The Phil B. Bekeart
Co., 114 Second St.

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105 Reade St., NEW YORK, N. Y.; 168 Oliver St., BOSTON, MASS.;
1015 Arch St., PHILADELPHIA, PA.

FISK RUBBER COMPANY

CHICOPEE FALLS, MASS.

**THE
BICYCLING
WORLD**
FOUNDED
1877
and **MOTORCYCLE REVIEW**
In which is Incorporated
the "Luc Wheel" and the "American Cyclist."

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Change of advertisements is not guaranteed unless copy therefor is in hand on SATURDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 649.

NEW YORK, SEPTEMBER 26, 1901.

Trade That Pays.

It cannot be too often repeated that the country trade is, and must for years continue to be, the most valuable, lucrative and reliable part of many a dealer's business.

At the risk of being deemed unduly persistent on this point we repeat the assertion.

The cities have been raked over as with a fine-tooth comb. The percentage of possible sales in them has been approached very closely, and the yield still to be gathered is so small as to be discouraging in many cases. Not only this, but the cost of making sales is high, so high that the dealer who neglects country trade in the pursuit of that of the denizen of cities is perpetrating a crime against himself.

An equal amount of work devoted to the sparsely settled sections will prove more productive many times over.

To the farmer, his wife, his son or daughter, and his "hands," the bicycle possesses a value that can scarcely be overrated.

The knowledge of this fact has been slow

in coming to the ruralites who are most to be benefited, but it has at length been borne in upon many of them, and others are in a receptive mood. But little labor is required to convince them that the bicycle is valuable to them, if not wellnigh indispensable; and, this point once reached, sales will follow naturally and almost without effort.

The most prosperous and best satisfied class of agents in the country to-day are those who have during the past season devoted their efforts principally to making sales in the rural districts.

There is a valuable lesson contained in this, and the wise dealer will not be long in mastering it.

Wherein Dealers are Negligent.

While it has long been apparent that the number of bicycles without coaster-brakes is unduly large, the Bicycling World's count of 200 bicycles on Riverside Drive, New York, will serve to accentuate the fact and may possibly illustrate more forcibly how dealers are failing to make the most of the opportunities offered by the device.

That but 28 bicycles in 200—one in seven—should be equipped with coaster-brakes—that but one wheelwoman in thirty-nine should be possessed of the device—is an almost astounding disproportion.

But astounding though it be, it is fair to accept it as representative of the existing state of affairs. It emphasizes what we have so often said—that dealers, generally speaking, are still unappreciative of the extent of the field which the coaster-brake has opened to them. They do not appear to realize that each and every cyclist unpossessed of the device constitutes "fair game" for them, or, if they do realize it, rarely have they "gone after" the "game" intelligently, persistently or well.

Each dealer may test the assertion for himself. Let him ask himself to how many of his patrons, regular or casual, he has talked or written coaster-brakes on his own initiative.

We recently put the question to a retailer of considerable importance, and he reluctantly admitted that he could not recall an instance of the sort. He had sold many coaster-brakes, but the sales simply came his way without solicitation or effort of any kind on his part.

The coaster-brake is an article possessed of every feature that readily appeals to the individual man or woman. It saves energy and muscular effort; it adds immensely to

the user's pleasure; it increases his personal safety; it may be applied to any bicycle, and the cost is low.

It is not such a far cry that the coaster-brake contributes as much to the rider's well-being as the pneumatic tire. Certainly the contention is fair, and for the purpose of argument gives the dealer a powerful lever.

This much is beyond doubt: Not since the pneumatic tire has there been an article that afforded the cycle dealer such room for action and promised such profit.

The proportion of seven to one is really a reflection on the retail trade. There is small reason why every man who rides a bicycle should not be possessed of a coaster-brake, and were the proportion two to one there still would be aplenty for the dealer to do.

That but one wheelwoman in thirty-nine should use the device is worse than a reflection on the retail trade—it is a disgrace. The coaster-brake can be made to appeal with special force to womankind. It not only husbands their energy, but it affords them the magnificent pleasure of coasting which too few have hitherto enjoyed, and gives them a sense of safety that is not to be denied.

The dealer who does not wait to be sought out, but who himself seeks out the cyclists who are not possessed of coaster-brakes, and who diplomatically "keeps after" them, will be revelling in dollars while his rivals are bemoaning "bad times."

The Status of the Motor Bicycle.

In a great many respects the position of the motor bicycle is similar to that of the safety a dozen years ago, or even less.

There is not, and cannot be for a number of years, any such thing as uniformity of design. The motor itself, its size and position, the method of driving, the shape of the frame—these and other matters are handled in entirely different ways, produce widely dissimilar results, and are received with favor or disfavor in consequence. In nearly every case, however, it has been results that were aimed at. How they were achieved was a secondary consideration.

It is pretty well understood by this time that the position of the motor is not a matter of the first importance at this stage of the game. It will give results, if well made, whether placed vertically or horizontally, or at any angle between the two. A dozen different points in or around the frame can be made to take it, or it can be placed over the

back wheel or forward of the front forks. The ordinary diamond frame will accommodate it, or the former may be varied and a place made especially for the motor.

It is the same way with the drive. The belt system has advantages and disadvantages equally pronounced. Whether it can be improved sufficiently to insure it a permanent place in motorcycle construction it is not easy to say at the present time. Chain transmission is in a not very different position. But it can be said of it that it is not losing any ground.

The size, or, what is virtually the same thing, the horsepower, of the motor is also a mooted question. But there is a growing impression that the smaller and lighter motors are, everything considered, the best for use on bicycles.

There is nothing very surprising in this belief. The bicycle owes its popularity very largely to its lightness and compactness. For a score of years nearly all progress was in these directions. Any retrograde movement would have been frowned upon and regarded as a setting back of the hands of the clock. It is highly desirable, therefore, that the addition of a motor should carry with it as little extra weight as possible.

There is another phase of the matter that points in the same direction. Many riders, possibly most of them, have no particular aversion to pedalling. What they do not like is too much exertion, too much hard work; such, for example, as is imposed on them when they meet those two cyclists' bugbears, head winds and hills. Therefore one objection urged against motor bicycles is that with them the rider is deprived of the pleasure of pedalling as well as relieved of the pain of it.

To such men the penalty paid for the use of small motors—i. e., the necessity for helping the machine up very steep hills—possesses no terrors. They will pay it cheerfully. Especially is this true when they come to realize how little "extra push" is really required to carry a machine over the top of a bad hill. It is surprising how much two or three vigorous pushes will do to win the victory.

It is almost certain that the refining process will set in very early now. Motor bicycles must be made pleasing to the eye as well as serviceable. Instead of repelling, as not a few of them do at present, they should attract.

All this will come about in good time. It was essential at first to have the motors

work. That difficulty conquered, the task of rendering the motor as inconspicuous as possible can now be entered on with every prospect of success.

The Finish of Rims.

Fashion's changes are well illustrated by the almost complete disappearance of wood rims and guards with natural finish.

The time was when such finish was considered to be "the thing." But that was when the sombre-hued steel rims and guards were just going out of style, and the change had as much to do with the matter, perhaps, as anything else. The difference in color made it apparent at a glance that the new wood parts were fitted to a machine, and that was what riders wanted.

Nowadays it is regarded just the other way. Wood is the correct thing still, of course, but natural finish is quite out of the question. Fancy colors of all sorts are popular, usually with striping of some kind.

Indeed, so universal has the custom of painting or enamelling rims become that it is not unnatural to look for some maker to seek variety by again turning to the natural finish.

A Costly Lesson.

It appears to be pretty generally conceded "on the other side" that cross-frame bicycles have fallen flat.

The firms that rushed in to take advantage of the expected demand for this type of machine have drawn in their horns. With few exceptions they are striving to forget that they ever regarded the frame as a winner, and endeavoring to get rid of their unsold stock.

There is little cause for surprise at this outcome. Although boomed extensively and with much apparent sincerity, there never was any real evidence of a demand for or a faith in the departure from the time-honored diamond frame. All there was behind the movement was hope, and this alone could accomplish little.

The fiasco simply emphasizes the wonderful and enduring hold on the riders' affections possessed by the present type of frame.

It has held the centre of the stage now for wellnigh a decade. At no time during that period has its sway been more absolute or assured, its chances of retaining its hold brighter. Its position is unassailable—at least until some radical departure from present standards is made.

It has cost the British trade a pretty penny to make this discovery. As a result it will

be a long time before change for the sake of change will again be made.

The New Pacemaker.

Interesting at least is the latest development of the motor bicycle. This is the type designed for pacing purposes on small tracks. It made its appearance immediately on there being shown a demand for it, and there can be no question that it fills the bill.

On a motor tandem the rear rider has but to manipulate the levers and look after the pace follower. His feet follow the pedals in their revolution, but the motion is mechanical and could just as well be done away with. On the single machine, however, the rider has to steer as well as to operate the engine, and the double duty is quite as much as he can attend to. Therefore, pedals are dispensed with altogether on the single machine, the rider's feet being placed into stirruplike steel frames attached to the frame of the bicycle.

In other respects the machine is very much like a motor tandem with the middle portion cut out. The wheel base is abnormally long, the frame being designed to accommodate the motor, which is placed between the two wheels in a nearly vertical position. But one chain is used, this running direct from the motor shaft to the rear sprocket. Simplicity and economy in the transmission of power are thus obtained in a very unusual degree.

Such machines have many points of superiority over the two-seater. They are much easier to handle and under better control. There is a sparking cutoff in the left hand grip, and this feature alone, which is lacking in tandems, renders the stopping and starting of the machine a much easier matter than with the type that has become familiar.

In the hands of a good rider a machine of this character is even easier to follow than a tandem. Considerably less power is required to drive it, so that the non-pedalling feature does not operate disadvantageously. Altogether it is a decided acquisition, and the pace followers are likely to make greater use of it as they become better acquainted with its merits.

There is a time for everything. If your show window is not now filled with a striking display of lamps, you are lacking in the shopkeeping instinct. It is a time for lamp sales.

Talking of striking bicycles, won't a full rickelled motor bicycle just about prove the "swellest thing that ever happened," as they say in the vernacular!

AT THE ENGLISH SHOWS

Motor Bicycles Will be the Feature—Nearly all Big Makers Have One.

London, Sept. 17.—So far as motorcycles are concerned, there is no doubt that there will be a very large display of these machines at both the forthcoming cycle shows, more particularly at the Stanley. It is now certain that practically every cycle firm of note has at least one pattern of motorcycle which it intends to put on the market next season, and I think it is also pretty certain that most of these machines will not show any great amount of ingenuity or improvement.

Every firm seems determined to copy; nor can this be altogether wondered at when we reflect that the few cycle manufacturing

or another will soon be more often seen than cars, and must always command a sale by reason of the lessened cost. On the other hand, there is the same cry for cheapness, and in this case I think a little unreasonably. I can well understand the public feeling against the high and ridiculous prices asked for some of the large motor cars, but when a good motor bicycle can be purchased for \$200 there does not on the face of it appear to be much to grumble at. Yet I frequently hear that people are waiting till they can get one for \$100. I do not think that that day will ever come, at any rate not until some much more simple and consequently cheaper motor can be devised. We can get pedal-propelled bicycles for \$50, but these machines are hardly of sufficient strength to stand a motor being mounted upon them, while the engine itself will cost another \$100, without fitting. In fact, at

air, which is a kind of elixir of life to the non-mechanical public. To hear some of the remarks made by people on this matter, and after perusing some of the inane nonsense which has appeared in the press and one or two of the magazines, one would suppose that half the people are fast qualifying for the already overstocked lunatic asylums. One thing, however, is gratifying, and that is that to judge by the manner in which the prospectuses of the company interested in the production of liquid air—or should I say in talking about its production?—are sent out periodically, the public have not reached that stage of blind faith necessary in order to successfully induce people to invest in the enterprise.

So far there is only one lady's motor bicycle before the public, namely, the Singer, and the fact is owing to the difficulty of fitting the usual type of engine to a dropped-



While some of the big makers are full of hesitancy and doubt on the subject of motor bicycles, the accompanying illustration will serve to emphasize what is already known—that the Wisconsin Wheel Works is not of the number. The picture is that of the "testing gang," which puts through the paces every Mitchell motor bicycle turned out. The

cement track on which the men are grouped is near the factory and furnishes the ground for the speed trials while the roads around Racine are quite enough to complete the 100-mile test to which each bicycle is put before it is shipped. Four of the bicycles in the photograph are designed for shipment to the Mitchell representatives in England,

Davis, Allen & Co. It is the first installment of a large order, which includes a full nickel-plated machine for exhibit at the show.

Incidentally the picture shows K. H. Beeber, superintendent of the Mitchell factory, and S. F. Heath, manager of sales. Counting from the right, the former is fourth in line and the latter sixth.

companies who have so far taken to designing cars or cycles for themselves have burned their fingers rather badly; in fact, it is a common saying in the trade that up to the present nearly every motorcycle or voiturette of English manufacture has been sold at a loss, when all the costs have been taken into consideration. Therefore it follows that, although the cycle manufacturers have at last awakened to the fact that the motorcycle has come to stay, and will shortly be a most popular type of vehicle, they prefer to feel their way slowly. The result is that nearly all are using one pattern of motor, the Minerva, the manufacturers of which must be doing a roaring trade. It is a good little motor, but might be improved upon considerably.

The long correspondence on the question of motors which has been going on in the columns of the Times has so far been directed solely to cars, and it is rather surprising that no serious attention has been given to the motorcycle, which in one form

the present time there is not much profit in selling a motor bicycle at \$200, as a good many of those who went into the trade are beginning to find out to their cost.

I have this week received a private circular informing me of the advent of a steam motor bicycle which "is driven on an entirely new principle." The particulars are not given "pending the sealing of the foreign patents," which is a very hoary excuse for gaining time and endeavoring to secure money from the public. Whatever may be said about the steam car, I cannot think that there is a future for steam cycles, as the danger from escaping steam and boiling water in the event of a bad smash would be apparent to all, and would militate very materially against sales. The boiler and engine of a car can be so situated that they are protected even in the case of a serious collision. The necessity for liquid fuel and its consequent dangers are also points against the steam cycle.

In this connection may be mentioned liquid

frame machine. It is, however, perfectly possible to construct a cycle with the motor placed as on the Werner, and there should be no difficulty about there being ample space for the petrol and oil tanks. Such a machine may require more "driving," and would therefore only be suitable for a lady who is pretty well versed in machinery; but, once learned, it would undoubtedly be faster than the Singer, which, to judge from accounts and from the specimens seen on the road, is a somewhat slow machine, although wonderfully easy to manage. I am rather surprised that more ladies are not seen about on motor bicycles or motor tricycles.

My recent bad sideslip with a machine with the motor in front gave me rather a poor opinion of motor bicycles, but recently I have tried one of these machines with the motor fitted in the frame and driving the rear wheel. There is no doubt that this type is much steadier on grease, and the liability to sideslip is not nearly so great. This may in some degree account for the extraordinary popularity of this class of machine among users of motor bicycles.

WE ARE EXCLUSIVELY

MANUFACTURERS OF TIRES.

Our efforts are concentrated in the endeavor to produce the highest grade articles that can be produced.

The most successful types now for particular people who desire THE BEST are these two:—

HARTFORD SINGLE TUBE

TIRES.

DUNLOP DETACHABLE

TIRES.

WE MANUFACTURE AND SELL THEM BOTH.

AND REMEMBER We could never have built such an enormous business as we have to-day had we not made each pair of tires as if our very reputation depended upon their quality.

THE HARTFORD RUBBER WORKS CO., HARTFORD, CONN.

BRANCHES:

Boston.

New York.

Philadelphia.

Washington.

Buffalo.

Cleveland.

Detroit.

Chicago.

Minneapolis.

Denver.

San Francisco.

HOW PROFITS PASS

Typical Example of how Dealers do not Arise to an Occasion.

When the coaster-brake first made its great strides into popularity the retail trade as a whole seemed to be fully awake to the opportunity presented.

Dealers and repairmen, once they were convinced that there was no fluke about it, set to work to take advantage of the great demand. They worked with a right good will and fitted the device to thousands and thousands of machines already in use. The shops were kept busy, and in most cases a little profit was made on the sale of the coaster-brake as well as on the work.

But they were unable to, or at least did not, maintain the good pace thus set. They took care of all the business offered, and even drummed up a little that was almost ready to fall into their laps. When that was done, however, they seemed to think that all was done.

"How is the coaster-brake business?" repeated a dealer who is undoubtedly both enterprising and wide awake, in answer to the *Bicycling World* man's query. "Why, we had lots of it last year. We fitted hundreds of old machines with the device, and made a very good thing out of it. But this year there is very little of it to be done.

"Once in a while a job comes in to us, and we are always very glad to get it. There is a very nice profit in fitting coaster-brakes, and it is nice work. But now it does not amount to much.

"Oh, yes, there are plenty of our customers who still use fixed gear wheels. But every new machine that has gone out of here this season, with two or three exceptions, has had a coaster-brake attached to it. We make it a point to advise all our customers to have their machines so equipped. You see, there are so many hills around here that it would be foolish to ride anything but coaster-brake machines. No, we never have any complaints. With one exception, I don't remember a single case where the customer did not return to agree with all we said in praise of the coaster-brake."

"Don't you think you could persuade some of your old customers that it would pay them to have coaster-brakes fitted?" he was asked.

"Well, come to think of it, perhaps it would. You see, we have worked on the other theory: When a man is ready to buy a new machine we talk coaster-brake good and strong, and in a majority of cases that clinches the sale. But I never thought of the other way."

If this was the way a successful and progressive dealer viewed the matter, what can be hoped for from the unenterprising ones?

They can scarcely be expected to go out into the highways and byways and carry the coaster-brake gospel to all who are still in

the darkness of fixed gears. They certainly have not done so, and the result is very plain. While many thousands of old machines have been fitted with coaster-brakes, and the proportion of new ones has been steadily increasing, and is still rising, the net result is by no means what it should have been.

One has but to watch riders anywhere to be aware that the fixed gear is still in the majority. It is quite within bounds to say that this is the fault of the dealer and the repairer.

They need the work and the profit to be derived from changing over the hundreds of thousands of old machines. But to get it they must make an effort. Unfortunately, that is just what they don't make. They



NEW YORK BRANCH: 214-216 WEST 47TH STREET.

think trade of this sort should come to them. It won't, however, and the sooner this is realized and the other tack taken the better it will be.

Nickel Plating as an Ad.

"I think the best ad. I ever had," said a veteran dealer who was in a reminiscent mood, "was four full nickelled bicycles. It was just on the eve of the boom. Nickelled bicycles were few and far between, and when those four bicycles of mine—they were ridden by members of my family—appeared on the streets they made the people stop and stare, I can tell you. It made them talk, and excited their curiosity, too. Every one wanted to know who we were and what wheels we rode, and the result was an ad. that reached the limits of the town. Then came the boom; the demand for that bicycle that ensued was simply immense. It simply 'sold all around' the older and better known makes."

E. E. Stoddard, of Dunham, Carrigan & Hayden; C. W. Marwedel, and Joseph Holle, each of whom is prominent in the San Francisco trade, are in the city. R. H. Welles and L. J. Keck, of the Buffalo Brass Mfg. Co., are also here.

COMES FROM FORSYTH

New Coaster-Brake That "Feels" as Firm as the Fixed Gear.

Coaster-brake competition is very keen. It is a sort of competition, too, that makes for the improvement of the device, the pruning away of little objectionable features usually regarded as a necessary accompaniment. Designers are plainly on their mettle, and are turning out work of a quality unthought of a year or two ago.

One of the latest comers in this field is the Forsyth coaster-brake, the production of the Forsyth Mfg. Co., Buffalo, N. Y. Its designer apparently aimed to retain the good points of other brakes, while improving on them in other and important respects.

Easily the first of these is the absence of backlash in the pedals or cranks. When the *Bicycling World* man, at Buffalo last week, rode a machine fitted with the device it was this feature that impressed him most. The feeling can only be likened to that of a fixed gear machine, the change from forward pedalling to coasting or to applying the brake being made without any jerk or, apparently, without a lost motion of any kind. The resumption of forward pedalling after braking was especially agreeable. The gear seemed to "bite" or take hold at once, and while of course it did not this was the impression conveyed.

The freedom of the wheel when the gear is thrown out is also commendable. The pedals remain perfectly motionless, and the outer portion of the sprocket wheel revolves on its separate ball bearing with an entire absence of friction. The excellent coasting of the machine is additional evidence that everything is free.

The appearance of the hub containing the coaster-brake differs in size only from that of the regulation barrel hub. The diameter— $1\frac{1}{4}$ in.—is the same all through, and the entire mechanism is placed between the hub flanges.

The mechanism is exceedingly simple. Less than a dozen pieces compose the sum total, and there is but one way for them to be assembled—the right way. They are placed in the hub in this order: Shoe, ball race, taper braking plug, double tapered nut, front bearing case, axle, back cone with spring, driver with worm, front cone, and lever or arm.

The double tapered nut is the important part. In forward pedalling the driver grips this nut, locking the sprocket wheel. The action is just reversed in applying the brake, the tapered nut being forced against the braking plug, which in turn engages the braking shoe. The braking plug is made of metal, a composition being used that is sufficiently hard to prevent undue wear, yet with gripping properties quite out of the ordinary.

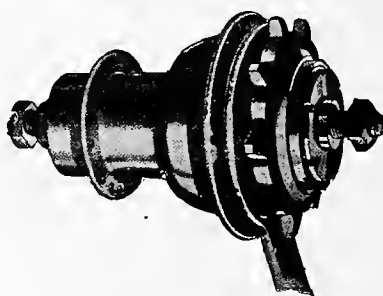
Fittings That Fit.

THE CROSBY COMPANY . . .	Sheet Metal Parts.
SPRINGFIELD DROP FORGING CO .	{ Springfield Wrenches, Snow Chains, Forgings, <small>Machined and Rough</small>
STRAIGHT MFG. CO.	{ Springfield Hangers, One Piece, Three Piece.
CLEVELAND HUB CO.	Hubs.
TOLEDO MFG. CO.	Forksides and Stays.
UNION MFG. & SPECIALTY CO. .	Tools and Specialties.

THE CROSBY COMPANY, - BUFFALO, NEW YORK.

**ANY
COASTER-BRAKE
IS
BETTER
THAN
NONE**

BUT



**NONE
IS
SO GOOD
AS
THE
MORROW**

The Morrow is Known Wherever Coaster-Brakes are Known.

It has been tried—tried in every country and in every clime, and wherever tried it has been proven true. The trial has been not of a few months by a few riders, but of many years on many wheels by many thousands of riders. Its leadership has been established by the practical trials of such usage, not by talk. It is easily the best—easily the best known—easily the best seller—easily the most reliable. It leads. “Just-as-goods” are merely “trailers.” ’Twas ever thus. ’Twill be ever so.

ECLIPSE MFG. CO.,

ELMIRA, N. Y.

DRUMMER'S GOOD WILL

A Factor Often Overlooked—Why it Pays to Treat Him Well.

He must be a very dull merchant who does not treat his customers with courtesy. Any man who has even a spark of the trading instinct feels intuitively that it is impossible to establish profitable commercial relations with any one by treating him simply as a purchasing machine. Every man has his own ideas, tastes, prejudices and, above all, feelings. He may become accustomed to differences of opinion; he may distrust his own tastes; he may be ashamed of his prejudices, but the man who tramples on his feelings arouses in him a deep, although latent, antagonism. If there is any fool in this world it is the fool who plays wantonly on other people's passions. Sooner or later he pays the penalty of his folly.

It is a curious thing that there are so many retailers and retail buyers who, while painfully careful of the feelings and interests of their customers, are utterly oblivious to the feelings and interests of the commercial travellers with whom they come in contact, observes a contemporary. Let a man approach them as a purchaser, and they are all smiles and suavity. Let him approach them as a seller and they do not even treat him with common decency. They seem to feel an ignoble pleasure in visiting upon the head of the wholesaler's agent all the snubs, meannesses and contemptible tricks that they suffer from their customers. Like the man who, when whipped on the street corner, went home and beat his wife, they seem to feel that it is safe to disregard the feelings of the commercial traveller. As a consequence there is many a merchant doing business with travelling men who while booking his orders curse him in their hearts, not because he is a close or shrewd buyer that they cannot overreach, but because to get his order it is necessary to put up with an amount of humiliation that stirs their deep resentment.

Business is business, and a commercial traveller or any other solicitor for patronage expects to put up with discomforts and annoyances, but no one has the right to ask him to patiently endure unnecessary humiliation. He who does shows an amount of conceit, an ignorance of the world and a capacity for making enemies that sufficiently prove his own insignificance as a man and a merchant.

There are men on the road, as elsewhere, who cannot be too severely treated, but they are exceptions. The average travelling man has an exceptional knowledge of the world, exceptional powers of observation and insight into characters and conditions, and an inside knowledge of goods and men that make him a mine of information, a travel-

ling storehouse, for the people with whom he comes in contact. With his access to the credit men of great wholesale houses, his acquaintance with other travelling men and his many relations in the great markets of the country, he is a commercial factor whose influence it is hard to overvalue.

What folly it is to excite without provocation the ill will of such a man! What stupidity it is to irritate him and antagonize him unnecessarily!

If merchants could hear the estimates and criticisms that commercial travellers pass on them among themselves they would often be amazed and astounded at the things said. It is just that kind of keen, incisive criticism, gathered from a wide comparison of men and methods, that it is useful to get at in a friendly way. The travelling man can give many valuable hints and suggestions to his friends. He can, while booking their orders, withhold much valuable information from customers who have antagonized him, and he can do both without any violation of confidence. A travelling man said not long ago: "There's C—, of Blankville. I never sold him a bill of goods and never expect to, but I never visit the place without calling on him. I sell his rival in the town, but C— is my friend. The other man I do my duty by. C— always treats me pleasantly; the other man rarely does. I have given C— many valuable hints. He appreciates them, and I have been of material service to him with other travelling men. He's a good fellow and popular with the men on the road."

If a merchant cannot see the advantage of having the good will of the travelling fraternity, let him remember that credit and the amount of consideration shown the retailer by the wholesale house are often materially affected by the travelling man's favorable or unfavorable attitude toward him. It's a hard thing to be hard on a man whom you like, and the reputation of being a nice man to do business with is a valuable moral asset. Again, it is a good thing to have the good will of the men from whom you never have bought and never expect to buy goods. The time may come when they can speak a word for or against you. The prestige for good or evil built up about us by the involuntary estimates or actions of other people has its fruit as much as our direct efforts.

A buyer in an Eastern city who was well known for his lack of consideration to wholesale houses lost his position. For a long time he was unable to get another. In speaking of the matter an acquaintance said: "Half a dozen men of less ability than he have stepped into positions that he might have had, but he antagonized all the people who otherwise would have been glad to help him, and so he has been left out in the cold."

One can never tell in this world when or how he will reap the fruits of his courtesy or discourtesy towards others. A merchant is a fool if he wantonly subjects any class of men with whom he comes in contact to treatment that rouses their antagonism. He should and will suffer somehow for his folly.

TAKING HIS MEDICINE

One Dealer's Inspiring Philosophy—Why Saturdays are Important Days.

"Of course, the results of this season's business have added to the number of pessimists," remarked the dealer from Brooklyn, "but, speaking for myself, I am not ready to admit that trade has gone to the dogs. I am even anticipating a good trade in 1902, and do not believe I will be disappointed. I made some money this year—not as much as I had expected to make, but still I earned a profit. But when I look backward the fact surprises me.

"Now that snow time is almost here, people are apt to forget the past; but let me tell you that it is many a long year since the cycle trade has had such weather conditions to contend with. Why, in Brooklyn, in thirteen successive weeks we had but one really pleasant Saturday. Yes, sir—just one of them. And when you cut Saturday out of the cycle dealer's calendar you might as well cut out the other six days.

"Saturday is our big day. It is payday and a half-holiday for most workers, and with money in their pockets and a holiday ahead it is the day when most people purchase bicycles and when they are most inclined to purchase them. If Saturday is wet or gloomy the money that would be spent for bicycles is spent for something else.

"There's no use trying to deceive ourselves to the contrary; people simply will not buy bicycles unless the weather is right. They will postpone their purchases from one wet week to another, and every postponement is an opportunity lost to the cycle dealer. Three or four weeks of wet weather means the Lord only knows how many decisions to 'wait until next season.' I hate to think of the money those twelve wet Saturdays lost me.

"There never was a year in many years that promised us better, and no one can make me believe that with even half decent weather a lot of the promise will not be re-aroused and return to us next spring in the form of cash purchases. No, siree! I'm not one bit disheartened. We must take our chances on the weather along with merchants in other lines of trade; and I for one realize the fact, and am not of those who damn the bicycle business simply because the weather went against us."

Gash Makes a Change.

W. D. Gash, long the business manager of the Waltham Mfg. Co., is now a Philadelphian. He has transferred his services and allegiance to the Searchmont Motor Co., of that city. Incidentally, a general reorganization of Waltham affairs is on the cards.

BATES ON TRADE PAPERS

Some Telling Truths About Their Value and About Those who Advertise in Them.

"The pages of a good trade paper are fertile fields in which profits may be raised if the cultivation is right," observes the astute Charles Austin Bates. "That the cultivation is generally wrong I believe you will all admit.

"The average advertising page of the average trade journal is an arid waste, and the fact that trade paper advertising has paid is a most remarkable testimonial to the inherent value of the space.

"Until a remarkably recent time the copy supplied for a trade paper ad. consisted merely of a business card or letterhead, and the trade paper, so far as its advertising pages were concerned, became merely an incomplete directory of its trade.

"But trade papers are becoming more and more businesslike and self-respecting.

"They are better edited and more useful than they were.

"They interest more readers, and so bring more subscribers.

"The fact that the paper is read makes the advertising pages more effective.

"Proper attention given to these advertising pages should make them only little less readable and valuable to the subscriber than

of common sense can be argue himself into the reading pages. That is where the advertisement writer comes in, and he has had and is having an uphill fight of it.

"To my mind it is absolutely ridiculous that any business man should consent to stay out of the trade papers in his class, and if such a man will give me half an hour to study his business and fifteen minutes to talk I will demonstrate to him that he cannot afford to stay out.

"The proposition is simply this: Here are two or three or half a dozen papers devoted to his particular line of business, going regularly to exactly the people that he must do business with or go out of business.

"And for a ridiculously small sum he can keep his name and the facts about his business continuously before these people.

"If he has any right or excuse for being in business, the telling of that excuse in the trade papers will profit him.

"By way of illustration, take the jewelry trade.

"As I understand it, there are in the country about fifteen thousand jewellers who carry stock. Every one of these is reached at least once a month by the Jewelers' Circular (weekly).

"My recollection is that the advertising rate in the Jewelers' Circular is \$1,560 for fifty-two full page insertions.

"If a man has any business at all—if he has anything that is worth selling to these fifteen thousand jewellers—how in the name

the belief that it is economy to save that \$1,560?

"If I were a manufacturer in the jewelry line I would put that expenditure right after the bread and butter for my family.

"The same thing is true in other lines, but possibly not to so marked an extent.

"Every man in every trade should advertise in at least the leading papers of that trade.

"Not because he wants the editor to jolly him, not because he is afraid the editor will roast him, not for any reason on earth, except the one reason that it will pay him to do so.

"It would probably pay him whether he had anything to do with an adwriter or not.

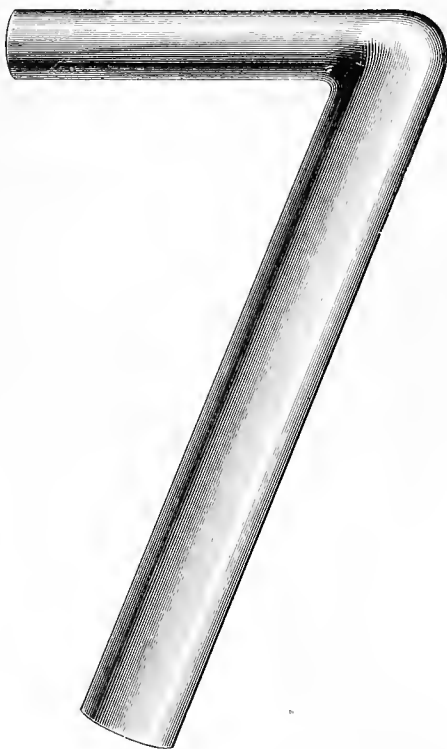
"It will probably pay him whether he ever changes his announcement or not. But it will surely pay, and pay big, if he puts the right sort of stuff into his space.

"And the right sort of stuff is not jokes or pretty pictures. It is the real honest facts about his business and the advantages of his goods.

"Illustration may be needed to give point to these facts.

"Display is needed to give prominence to the ad.

"It is only a smart man, who can see far enough beyond his cash drawer to find wisdom in paying the advertisement writer \$20 or \$30 for writing and designing an ad, to go into a \$25 space—or to pay him \$15 or \$20 for an ad to go into a \$7 or \$8 space.



ALL **STYLES**
LENGTHS OF STEMS
LENGTHS OF TOP BARS
GOOD SEAT POSTS

ARE MANUFACTURED BY US.



Send for our Catalog.

THE STANDARD WELDING CO., CLEVELAND, OHIO.

New York Office, 94 Reade Street.

THROWS UP THE SPONGE

Here's a British Journal That Suggests Export Trade is not Worth Seeking.

Our contemporaries who are engaged at the moment in endeavoring to galvanize interest in the foreign markets open to the cycle trade have our sympathy, says the Scottish Cyclist in an editorial which seems to admit that the jig is up.

They are about ten years too late, it says, and they are faced with a monumental apathy which induces us to predict that their efforts are merely waste of good space.

The situation to-day is that, with the sole exception of our colonies and a few half-populated tracts, every country is very nearly able to produce all the cycles that its own people require. The balance above that may or may not be worth the while of those who over-produce to secure—the British cycle trade has practically said that it is not—but it is certainly not at all likely in our opinion to expand in the future. We are the only country which admits competition free, and from the very fact that our cycles are better made and of better value than those of any other country the ad valorem principle handicaps us in competing against the cheaper American and Continental articles.

The rush into the automobile trade has not relieved the congestion in our ranks abroad or at home. We are still harassed by over-production and an unprofitable market. It is the same all over the world. The margin of profit on current prices is so low that it is not able to carry the heavy costs of working distant markets, most of which are more cheaply reached by our competitors. Then comes the bad debt deterrent, and our traders' cup of disgust is filled. We don't think that we are far wrong when we assert that the English cycle trade has lost more money on bad debts contracted through pushing foreign markets than it has ever made in profits.

Plainly speaking, we do not think that the foreign market of to-day is an inviting ground for disposing of surplus stock even, not to speak of special patterns which would have to be built if the matter was to be properly handled. And if a market does not yield a profit, what is the use of endeavoring to secure it? After all is said and done the English cycle trade probably knows more about the practical value of foreign trade than those who are laboring to make a mountain out of a particularly poor molehill.

Traveling Salesmen's Authority.

In the absence of special authority to bind the principal a drummer can merely solicit and transmit an order, and the contract of sale does not become completed until the order is accepted by his principal; the fact that the drummer and the proposed buyer exchanged memoranda of the proposed contract, signed by them, does not alter the rule. 61 S. W. Rep. (Ky.) 9.

To Eliminate Fractions.

George H. Cooper, a British Columbian, has invented a new system of notation which he claims to be superior in many respects to the decimal and metric systems now in general use. It is a system of eights instead of tens, and is designated as the "octimal system."

The fundamental advantage of the system is that it eliminates fractions. Eight may be subdivided to infinity, and you always get units, never fractions or pieces of units. The very name of the decimal system shows its nature. It runs to fractions so constantly that the fraction is as much a natural part of the term as the Greek "deka," meaning ten. Mr. Cooper maintains that a system which eliminates fractions and does not put any other hard thing in place of it is worthy of the serious attention of an intelligent world.

Keep A-go'in'.

If you strike a thorn or rose,
Keep a-go'in'!
If it hails or if it snows,
Keep a-go'in'!
'Taint no use to sit and whine
When the fish ain't on your line;
Bait your hook an' keep on tryin'—
Keep a-go'in'!

When the weather kills your crop,
Keep a-go'in'!
When you tumble from the top,
Keep a-go'in'!
S'pose you're out o' every dime?
Gettin' broke ain't any crime;
Tell the world you're feeling prime!
Keep a-go'in'!

When it looks like all is up,
Keep a-go'in'!
Drain the sweetness from the cup,
Keep a-go'in'!
See the wild birds on the wing!
Hear the bells that sweetly ring!
When you feel like singin'—sing
Keep a-go'in'!

—Frank L. Stanton.

About Store Signs.

There is a good deal in a sign, very truthfully remarks a contemporary. On no account should it be cheap. If it is a daub the public has the right to infer that there is not much enterprise on the inside of the store.

It is not necessary that a business sign should be costly to be right. It is better, however, to spend a little money for a sign than to neglect to make it presentable. The sign makers have gone deep into the subject, and they have ideas that are worth considering. A bright sign can be seen a long way off. In the cities a large amount of money is spent for signs every year. Electricity has come to play a part, and usually these signs are movable so that far down the street the sign can be seen. When the paint is old on a business sign it should be replaced by a new dressing or a new sign. No firm can afford to have a poorly painted board on the outside doing daily duty any more than a progressive man can afford to drive an old shack of a horse. We judge firms as we do men, by what they do.

TRADE ON THE COAST

'Frisco Dealer Points Out Wherein Makers Hurt Themselves and Their Agents.

Joseph Holle, one of San Francisco's best known dealers, is among the trade visitors to New York this week.

He confirms the general report of a good trade on the Coast this season, although in San Francisco it has been considerably affected by the labor strikes. Generally speaking, however, the weather has held true, and the effects of the Eastern decline have not been felt in California. Mr. Holle sees no reason why there should be a falling off in business next year.

"There is one thing, however," he said, in talking of the subject. "that hurts us. While there are sales all the year around, our season for new models begins earlier than in the East. We have tried to impress this fact upon the Eastern manufacturers. We have talked and written about it until we have become blue in the face, but it seems to have no effect. We continue to get our models along in February or March, where if we could get them in October or November they would do us twice as much good."

"There is one big dealer in 'Frisco who seems to have powerful influence of some sort that enables him to get samples in October and stock in November, and the result is that he does the best business on the coast."

San Francisco is a billy city, and Mr. Holle reports that the dealers have made the most of coaster-brakes. He himself was one of the earliest to use not only that device but to obtain a motor bicycle, six of which he sold this year.

He takes an uncommonly sane view of the motorcycle situation. As he says, when he obtained his first one he knew nothing about gas engines, consequently had everything to learn. But he has learned it, and sees a future for such machines, and naturally anticipates that having been the pioneer in the line he will receive his reward in due season.

The repair department is a chief feature of the Holle establishment, and it is in this regard that Mr. Holle believes that the motor bicycle has helped him almost beyond price. As an advertisement, he estimates that it has been worth to him ten times its cost. Aside from calling attention to his general business, it has given him the reputation of being an expert mechanic, and has drawn to him a profitable and increasing trade, not only in bicycles but in all other vehicles.

Warwick to Make Motor Bicycles.

The Warwick Cycle Co., Springfield, Mass., will have a motor bicycle on the market in season for the 1902 trade. Arrangements are already well advanced.

(Continued from page 501.)

season about 85 per cent. of the number employed before the consolidation.

"I believe that the efficiency of management is higher than before, because it is the policy of the company to pay good salaries and to select the best men and hold them. There is a manager at the head of each factory and a manager at the head of each of the nine sales departments. The factory manager is responsible for the production of goods. He has absolute authority in running the factory. He makes his record on economy of running, together with the quality of goods turned out. The sales manager receives goods assigned to him from certain factories, the selling price being determined by the Board of Directors. He hires his own salesmen and conducts the sale of his own goods. He makes his record on the quantity of goods sold. The company make comparison of the results obtained at different factories, and base upon the results an estimate of the efficiency of the several managers.

"There has been no change during the last two years in the price of 'agency goods'—that is, bicycles which are marketed through established retail agencies. On jobbing goods there is a tendency to stronger prices. The cutting of prices which resulted from the severe competition has been stopped. The company, therefore, still make their special line of goods at especially low prices for mail order houses.

"I suppose that the American Bicycle Company sold about 65 per cent. of all the bicycles sold in the United States in 1900; but this is scarcely more than a guess. There are many small shops which buy a few parts and put together a few bicycles during the winter—five, ten, fifty or one hundred. The aggregate amount of this kind of manufacture is considerable, but it cannot be closely estimated.

"Our export trade is attaining considerable importance. The bicycles exported are mostly of the better grade, and many of them have even better and more expensive equipment than is used here, and on this account are sold at actually higher prices. In general, our export prices are based substantially on wholesale prices in this country.

"There has been no general change of wages since the American Bicycle Company were formed. The executive officers have taken no action on the subject, but have left it entirely to the local managers.

"The subject of trade unions has been treated in the same way. Even when the local managers have consulted the central office on this point, they have been told their attitude toward labor organizations is considered to be a matter for their own determination in their character as managers. Some of our shops are union and some are non-union.

"The tariff has no effect on our business that we are conscious of. We would not

turn a hand to prevent repeal of the duty on bicycles.

"The automobile business is in such an undeveloped state that very little can be said of it. The manufacture of automobiles is conducted by this company in separate factories, and the selling of them is also confided to separate agencies."

Tire Troubles in the Goldfields.

In the gold field district of Australia, where water is obtainable only at wells sunk by the government along the roads at intervals of from ten to twenty miles, the scarcity of water has inspired the ingenuity of riders in locating tire punctures. Most of the cyclists try the tube in fine dust, and it is surprising how quickly punctures are discovered by this means. Other means are used, such as passing the tube before the eyes, when the air, rushing out, is felt by those sensitive organs.

"Only recently," writes a cycle dealer in Cue, "we were informed by one of our customers who had just arrived from Lake Wag (two hundred miles) that, having punctured his tire, he poured two teaspoonfuls of water into his tube, then blew the tire up, and it never varied in tightness for the last hundred miles to Cue. On removing his tire he found the tube punctured in two places by a plant called the 'double gee.' This plant nearly killed cycling a few years ago inland."

COASTER-BRAKE TROUBLES ELIMINATED

IN THE FINISHED

FORSYTH

DON'T CLOSE
UNTIL YOU SEE IT.

Special Features: Simplicity (fewer parts than any other,) Lightness, Strength, Position in Action, Fitted to either Chain or Chainless, Frictionless (coasts as easily as a chain wheel without any chain;) above all, our own **EXCLUSIVE SPECIAL FEATURE**, Regulation of the crank—throw can be adjusted without removing from the frame; no other Coaster-Brake on the market has this feature.

These few points ought to set you thinking. We have others. Better write us at once.

FORSYTH MFG. CO., BUFFALO, N. Y.

"A great deal in a little space."

—The Press.

"THE FOUR-TRACK SERIES"

This is the title of a series of books of travel and education issued by the Passenger Department of the

**NEW YORK CENTRAL &
HUDSON RIVER RAILROAD.**

These small books are filled with information regarding the best modes of travel and the education that can best be obtained by travel.

They relate specifically to the great resorts of America—to trips to the islands of the sea and around the world.

They also contain numerous illustrations and new and accurate maps of the country described.

A copy of the 40-page Illustrated Catalogue of the "Four-Track Series" will be sent free, postpaid, upon receipt of postage stamp by George H. Daniels, General Passenger Agent, New York Central & Hudson River Railroad, Grand Central Station, New York.

RACING

With the scalp of every prominent pace follower hanging from his belt, Michael had but to add that of Walthour to regain his position as top notcher in the middle distance class. This he accomplished at Madison Square Garden on the night of September 18 in a 15-mile paced race; since then he has defeated Walthour no less than four times. The men were started, as usual, from opposite sides of the track. Michael started with such a burst of speed that he had a lead of a quarter of a lap at the end of the first mile. He continued to gain, and overtook and passed Walthour for the first time in the seventh lap of the second mile, which gave him a lead of half a lap. In endeavoring to prevent Michael from passing, Walthour lost his pace, and before he could regain it lost another quarter of a lap. After that it was all over with Walthour, as the same thing was repeated several times. In the fourth mile, when Michael was riding inside of record time, Walthour lost his pace again, and was passed for the second time. Before Walthour's machine got under full headway Michael passed him for the third time. That was in the fifth mile. In the tenth mile Walthour began to catch up, but Michael's speed was too much for him, and in the twelfth mile Walthour was passed for the fourth time. When the race ended the two men and their pacers were traveling abreast, Michael just four and a half laps ahead. Time, 24:32; best previous record, 24:43.

On September 21 Michael defeated Walthour in two straight heats. The men were matched to ride heats of five miles each, best two in three. In the first heat Michael won by a lap and a half. In the second heat Walthour lost his pace after two miles had been ridden, and Michael won by more than a half mile. Time of first heat, 8:01 4-5; second, 8:04 4-5.

For the fourth consecutive time Michael defeated Walthour at Madison Square Garden on September 23 in their motor-bicycle paced races at distances of three, five and seven miles, best two in three heats. In the first heat of three miles Michael won by five-eighths of a lap, in 5:08 3-5. In the second heat, at five miles, he defeated Walthour by a lap. Time, 8:12 4-5.

Michael's manager, Tom Eck, states that he and his charge will sail for Europe on September 26 for a winter of racing on the French and Continental tracks.

At Vailsburg on September 22 five thousand people saw Kramer in a sensational finish prove that no distance up to 25 miles is beyond his powers. In a hammer and tongs fight the whole of the 25-mile journey Kramer showed his superiority, capturing the intermediate prizes at 5, 10 and 15 miles (the 20-mile money going to McFarland), and in a whirlwind finish the race in 58:55 2-5,

establishing a world's record in unpaced competition. The best previous record was made by McFarland. Time, 1:00.28. Thirty riders lined up for the event, and it was a representative field, only Lawson and Fenn being absent. The team work of Kramer and McFarland was wellnigh perfect, sometimes side by side, now one far in front, and the other in the rear; but when it came to the sprint for the intermediate prizes they were always close together, McFarland in front and Kramer at his rear wheel. The finish was sensational in the extreme, the six contestants who remained for the final struggle being separated only by inches. Kramer got the verdict, with McFarland in the place, Hausman third and Bowler (of whom much was expected) fourth. Alexander and Nat Butler brought up the rear.

At Baltimore on September 23 Taylor again essayed the paced game and again came out second best to McEachern. Taylor won the first and McEachern the second and third heats. The toss for the pole in the mile race was won by Taylor. He went to the front and never was headed, beating McEachern by ten yards in 1:28. According to the articles of agreement, the distance in the second race was to have been three miles, but McEachern conceded a point in favor of Taylor, and it was changed to two miles. It was a beautiful race. Taylor quickly caught the pole and kept slightly in the lead until near the finish. Then, with a magnificent burst of speed, McEachern went to the front and fairly raced Taylor off his feet, finishing a quarter of a lap ahead. Time for first mile, 1:31; second, 1:30 3-5. McEachern had no trouble winning the five mile event. At the end of the mile McEachern passed Taylor, and the latter quit. McEachern finished a little more than half a mile in the lead in 7:47. The fastest mile was the first heat, which was done in 1:32.

At Madison Square Garden, September 24, Kramer won the fifteen-mile lap race. Time, 36:59 4-5. Freeman second, Bowler third and Maya fourth.

There were eighteen starters and only five finishers. Wilson stole a march on the

other contestants by fast work and gained a lap on them. Half a mile from the finish his wheel slipped as he was rounding the Madison avenue turn on the fifth lap of the last mile, and rider and bicycle slid down the embankment. Kramer, who was lying close, jumped into the lead and won by a good length from Freeman. In the one-mile professional handicap Kramer, as scratch man, was too heavily handicapped to win, Haasman, with a handicap of 80 yards, won in 1:54. The amateur team pursuit race was won by the New York team, composed of Schreiber, Sullivan and Hurley. Distance two miles, time 4:26 4-5. The one-mile handicap amateur was won by Schreiber, scratch. Time, 2:11 2-5.

At the Charles River Park, September 24, Elkes, Walthour, Michael and McFarland appeared in a five-mile race paced by motor bicycles, the winner to take three heats. Elkes and Walthour won two heats each, and as Michael was obliged to start for New York and McFarland did not appear in the third heat, Walthour and Elkes will ride off the tie on September 27. Elkes won the first two heats and was second in the third and fourth, while Walthour was first in the last two and second in the first and second. Michael finished third in each heat, and while McFarland did not start in the first, he rode a short distance in the second heat, but fell out on the third lap. Time, 8:08, 8:02, 8:10:03, 8:13:03.

Incorporation Means Expansion.

The recent incorporation of the Elmira Arms Co., Elmira, N. Y., with a capital stock of \$20,000, means a considerable enlargement of the business. Heretofore the business has been the property of John N. Willeys. Under the new order of things it will be shared by the following stockholders: John N. Willeys, W. O. Crew, George T. Wolcott, Ralph E. Webster and Charles S. Lattin. Bicycles have always been a prominent line of the company's stock, and will not suffer under the rearrangement and enlargement of affairs. The jobbing department will hereafter be directed by Mr. Crew, who comes from the house of E. K. Tryon & Co., of Philadelphia.



STEEL BALLS

The Best in
the World.

EXCELSIOR MACHINE CO., BUFFALO, N. Y.

The Week's Exports.

Great Britain and her possessions, Australia and the East Indies in particular, were the largest buyers of American cycle stuff. Holland was the only other country to touch the \$1,000 mark. The record in detail for the week, which closed September 17, follows:

Antwerp—1 case bicycles, \$40.
 Amsterdam—4 cases bicycle material, \$213.
 British possessions in Africa—2 cases bicycles, \$200.
 British Australia—61 cases bicycles, \$2,249.
 Brazil—3 cases bicycles and material, \$257.
 British East Indies—62 cases bicycles and material, \$3,467.
 Bremen—1 case bicycles, \$25.
 British West Indies—42 cases bicycles and material, \$1,232.
 Christiania—1 case bicycles, \$25.
 Copenhagen—13 cases bicycles, \$445.
 Cuba—4 cases bicycles, \$134.
 Central America—3 cases bicycles and material, \$101.
 Dutch Guiana—15 cases bicycles and material, \$450.
 Ecuador—1 case bicycles, \$27.
 Glasgow—1 case bicycles, \$20.
 Gothenburg—3 cases bicycles, \$70.
 Genoa—2 cases bicycles, \$50; 9 cases bicycle material, \$490.
 Hayti—1 case bicycles, \$15.
 Havre—6 cases bicycle material, \$275.
 Hamburg—17 cases bicycles and material, \$398.
 Liege—1 case bicycle material, \$75.
 Liverpool—35 cases bicycle material, \$10.
 London—119 cases bicycles and material, \$1,909.
 Naples—2 cases bicycle material, \$100.
 Newfoundland—2 cases bicycle material, \$109.
 Rotterdam—19 cases bicycles and material, \$1,050.
 Stavanger—9 cases bicycles and material, \$200.
 St. Petersburg—1 case bicycle material, \$67.
 St. Malmo—1 case bicycles, \$36.
 San Domingo—3 cases bicycles, \$11.
 Venezuela—2 cases bicycle material, \$46.

What Could Make Less Noise!

"The real problem for inventors, considering the greatest good to the greatest number, is to enable us to move not more quickly but more happily; to diminish, first of all, the noise and the resulting nervous tension with which modern progress has replaced the red Indian at the door of the stockade or the masked robber at the door of the stage-coach."—(Philadelphia Saturday Evening Post.

And yet that invention, the bicycle, is already here. Could anything move more noiselessly?

"Defects (in motorcycles) and How to Remedy Them." See "Motorcycles and How to Manage Them." \$1. The Goodman Co., Box 649, New York.

The Retail Record.

Morrisville, Pa.—Davis & Partlow, removed to Tifz Block.

Islip, N. Y.—Joseph Downs will remove on October 1 to larger quarters.

Cadillac, Mich.—C. D. Shepard, removed to the Olson Building, on South Mitchell street.

Nashua, N. H.—Lintott & Buswell have dissolved partnership; Lintott will continue business.

New York, N. Y.—American Bicycle Co. has taken judgment against Edgar B. Teachart for \$396.

Superior, Wis.—Hunter & Marticot, who were recently burned out, have reopened at the West End.

Boston, Mass.—James C. Bell, No. 8 Warren avenue, filed petition in bankruptcy, with liabilities of \$3,298.77 and assets of \$500.

Toledo, Ohio.—Norman DeVaux has purchased the retail business of E. G. Eager & Co., Nos. 324 and 326 Superior street, and will make the latter place his headquarters, closing his Jefferson street and East Side stores.

Recent Incorporation.

Camden, N. J.—Punctnot Tire Co., with \$1,000,000 capital, to manufacture non-puncturable tires. Incorporators: L. C. Wirth, C. S. Bisworth, William F. Eddell.

American vs. English Methods.

While the British papers and people can see no reason why the "bloomin' Yankees" should outstrip them in the race for export trade, merchants in even the British colonies are continually pointing the way. One of them, writing from Melbourne, gives a good illustration of the difference between English and American methods. He says:

"Concerning the trade relations with England and America, the latter's representatives are obtaining a larger hold every year, simply because they look after our wants better, and what we ask for they always supply.

"With regard to chains. For the twelve months ending Jan. 30, 1901, I sold 8,000 block chains, all English; but since that time I have sold over 5,000 American chains, their price being very considerably below English-made chains. Handlebars I can purchase quite 40 per cent cheaper from America, while in free wheels, wood rims, spokes, mud guards, brakes, etc., I am afraid the trade is drifting pretty fast toward America. I am quite sure that every patriotic Australian dislikes this; but if you order from America you get what you want; while in England they send what they please.

"I gave one English firm an order for £300 worth of goods. These they sent in four different shipments, and not one invoice agreed with goods sent. From the same firm there is now lying on wharf one case of which I have received no invoice or B. L., and goods valued at £70. Of course when the charges come along they will amount to over 50 per cent of invoice."

Wood Rims Abroad.

Possibly the British trade and public will some day awaken to the fact that there is merit in wood rims, even though they come from that despised land, America.

If they do not it will not be for want of testimony of a convincing character. It would be difficult to imagine anything better in this line than is contained in a letter from a British dealer and appearing in *Cycling*.

"The result of my tests," he says, "has been that a good wooden rim not only has more life and speed, but is superior in every way to any steel rim made.

"It can be made perfectly true, it is very easy to build into a true wheel, provided only the drilling is done at the correct angles, and nipples of correct shape used, and when it comes to a question of rough usage nothing will stand up like it. Any good player of cycle polo will vouch for this.

"In my business as a cycle maker and repairer I have during the last five years replaced cartloads of steel rims which have failed in use, either from collision with other cycles, or some other sort of accident, many of a very slight nature; during this time, in spite of the number of wooden rims which at one time abounded on cheap American wheels, often badly built, I have only had to replace, possibly, some five or six; and in many cases I have had machines brought in completely wrecked as regards the frame and forks, but with the wheel still intact or only broken spokes, the wheel going true again so soon as these were replaced.

"A wooden rim will not buckle like a steel one, or, if buckled, it springs true again so soon as the strain is released."

Crest's New Coils.

The Crest Mfg. Co., Cambridge, Mass., are placing on the market a new induction coil designed particularly for use on motor bicycles and other work where the coil is exposed to the weather. It is made of hard rubber, to insure the coil against failure, as it is well known fibre or wood is affected by dampness. The coils are exceedingly simple, having but three connections, the secondary wire goes to the plug, one primary wire to the battery and the other to the interrupter or sparking device. The battery wire is the ground both for the secondary and primary. They also make a box type of single coil, having four connections, consisting of two secondary wires, one to the ground, one to the sparking plug, and two primary wires, one to the battery and the other to the interrupter, or sparking device.

Straight Talk That Tells.

The straight-from-the-shoulder declarations of the Miami Cycle Mfg. Co. have had much to do with the emphatic success of the Raecycle and the loyalty of Raecycle agents. Their ad. in this issue is an excellent instance of the sort.

WANTS AND FOR SALE.

15 cents per line of seven words, cash with order.

FOR SALE.—3 1-2 h. p. air-cooled Aster Motor; this particular motor proven by repeated tests to be the fastest in America. Price, with three extra igniters, \$125. First offer takes it. Address "Aster," care Bicycling World.

THOMAS MOTOR BI, new, not a scratch, \$100; "Mobile," victoria top, etc., all latest improvements, \$600; Milwaukee, victoria top, run about 350 miles, all latest improvements, \$600; a large stock of good steam and gasoline rigs taken in trade, for sale at all times, and we turn them quickly at close margins. Write us. Fisher Automobile Co., North Delaware St., Indianapolis, Ind.

HIGH GRADE

wheels must have the best equipments.

There is nothing that gives more value for the money than the use of the

MORSE TWIN ROLLER CHAIN



NOISELESS IN MUD, WATER OR DUST AND ALWAYS EASY RUNNING.

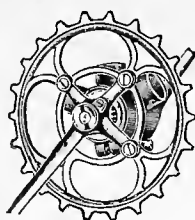
The only chain having Frictionless Rocker Joints. Insist on having the Morse Twin Roller. Fits regular sprockets.

Send for Catalogue and Trade Price to

Morse Chain Co., Trumansburg, N. Y.

Wheels That Made Champions.

The official champions of America for 1901 both won their honors astride "independent" bicycles. M. L. Hurley, the amateur champion, rode a Yale; Frank Kramer, the professional champion, rode a Pierce.



"D. & J." HANGERS

FOR Single, Tandem, Triple, Quad and Motor Cycles.

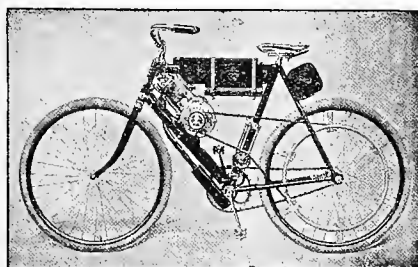
ABSOLUTELY THE BEST
Lightest, Nearest Dust Proof, and Easiest Running Hanger in the World.
Park City Mfg. Co., Inc., Chicago

DO YOU WANT TO BUY AN

AUTO-BI

THAT HAS STOOD EVERY RACKET?

We have three (3) Auto-Bies that have been over those fearful roads from New York to Buffalo, that can be bought of us.



The first three (3) to get in line for these machines are going to get them. If you want to own one of these famous machines, write us at once. There are only three (3) machines, but there are hundreds of bicycle dealers and others who will want them.

E. R. THOMAS MOTOR CO., Inc.,

106 BROADWAY,

BUFFALO, N. Y.

NEVERLEAK
STOPS LARGE PUNCTURES.

This is the only fluid that can be legally used in pneumatic tires. Suits now pending.

BUFFALO SPECIALTY MFG. CO.,
Buffalo, N. Y.

HAND AND FOOT PUMPS,

Oilers, Repair Tools,
Valves, Name-plates, etc.

Spelter Solder

Sheet Brass,
Brass Wire and Rods.

SPECIALTIES to order
MADE OF BRASS.

SCOVILL MFG. CO.

Factories: Waterbury, Conn.
Depots: 210 Lake St., Chicago.
423 Broome St., New York

OILERS.

"PERFECT"



25c.

"CEM"



"LEADER"



10c.

"STAR"

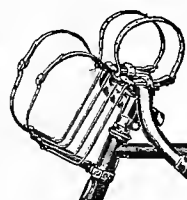


We make oilers for almost the entire trade. The quality of our oilers is unequalled.

CUSHMAN & DENISON, Mfrs., 240-2 W. 23d St., N. Y.

WOLFF-AMERICAN
BICYCLES.

STEARNS BICYCLE AGENCY, - Syracuse, N. Y.

LAMSON-PETERSON
LUGGAGE CARRIERS

The most
serviceable made.

MEQUIER & JONES CO., Portland, Me.



K-O-K-O to be on the go, get your tires from Kokomo. Made and sold by

KOKOMO RUBBER CO., Kokomo, Ind.

If You Desire
Complete Motor Bicycles

You cannot get a better one than

THE MARSH.

If You Desire
to Build Your Own Motor Bicycle

We can supply everything which you require for the purpose. Write us.

The Motor Cycle Mfg. Co., Brockton, Mass.

The Week's Patents.

682,596. Carburetting Device for Explosive Engines. Robert Aldrich and William T. Aldrich, Millville, Mass., assignors to themselves, and Fred L. Cleveland and George H. Baker, Woonsocket, R. I. Filed Sept. 8, 1900. Serial No. 29,353. (No model.)

Claim.—1. In a supply mixer and controller for explosive engines, the combination of a casing formed by a casting, and having a main outer chamber or air passage, means for regulating the admission of air to the lower end thereof, an oil passage formed integrally with said casing, and extending transversely across the air passage thereof, said oil passage having a small central round bottomed basin for containing a small quantity of oil, and a nipple which extends down concentrically substantially to the bottom thereof, whereby the end of the nipple will be submerged in a small quantity of oil, and surrounded equally on all sides thereby, a valve for controlling the passage from said nipple to the outer chamber, and connections for supplying oil to the oil passage, substantially as described.

682,606. Explosive Engine for Motor Vehicles. Charles E. Duryea, Elizabeth, N. J. Filed July 20, 1897. Serial No. 645,233. (No model.)

Claim.—1. In a motor vehicle, a fuel supply tank located on the front fork portion thereof and provided with an adjustable fuel supply valve, an inlet port for the admission of air and fuel concentric with the front wheel and axis, an inwardly opening valve closing said port, air and fuel passages communicating with the inlet port, a combined hub and engine case adapted to receive the fuel mixture and also containing the working mechanical parts, a crank shaft, idlers gearing the same to the wheel hub, an idler shaft carrying said idlers, a clutch for clutching said shaft at will to the bicycle forks, said case being provided with cylinders having pistons connected to said crank shaft and having outwardly opening valves.

682,648. Dry Battery. Henry Splitdorf, New York, N. Y. Filed May 27, 1901. Serial No. 62,022. (No model.)

Claim.—A dry battery provided with a negative element, a zinc element, two concentric shells surrounding the zinc element, and a packing of paraffin and rosin between the shells, substantially as specified.

682,682. Motor Bicycle. Emil F. Hafelfinger, Weehawken, N. J. Filed Dec. 1, 1900. Serial No. 38,292. (No model.)

Claim.—1. In a motor bicycle, a frame, comprising a vertical brace member having a socket section for a seat post, a series of arms extended downward from the socket section, said arms being curved outward between their ends and arranged one pair forward of the other pair, and a motor supported between said arms, substantially as specified.

682,687. Wheel for Bicycles. Samuel Hamblen, Hot Springs, Ark. Filed Oct. 29, 1900. Serial No. 34,762. (No model.)

Claim.—A vehicle wheel consisting of an outer and an inner rim, the outer rim having a rubber tire fitted thereto, a series of metal bushings extending through openings in said inner rim, nuts on the threaded ends of said bushings, bolts passing through the outer rim and through the bushings, springs encircling the bolts, nuts on the ends of the bolts for adjusting the stress of the springs, and detachable cups covering the springs, bolts and nuts, said cups being interiorly threaded to fit the threaded peripheries of

the nuts on the ends of the bushings, substantially as described.

682,822. Oil Engine. Michael E. Toepel, Frank B. Widmayer and Adolph Potdevin, New York, N. Y. Filed Aug. 31, 1900. Serial No. 28,654. (No model.)

Claim.—1. In an internal combustion motor the combination with the flywheel having a recess in its face, of a valve-operating cam disk fastened within said recess.

682,856. Sparking Igniter for Explosive Engines. William C. Matthias, Reading, Pa., assignor to Adam H. Leader and Henry M. Roland, same place, and Alexander Murdock, Hamburg, Pa. Filed April 13, 1901. Serial No. 55,602. (No model.)

Claim.—In a sparking igniter, an outer casing having a cap through which passes a regulator pin, an inner casing having a cap carrying said pin, and a slotted base in which is pivotally mounted a sparking pin, and weight inside said inner casing adapted to rest against the head of said pin, in combination with a revolving shaft carrying one or more trips adapted to contact with the depending end of said pin with a wiping movement, substantially as and for the purpose set forth.

682,860. Band Brake Wheel. John H. Punchard, London, England. Filed March 29, 1901. Serial No. 53,421. (No model.)

Claim.—1. The combination, with the end portion of a wheel hub, said end portion having an annular shoulder, of split ring portions immovably secured around said end portion, an inwardly projecting flange on said split ring portions and fitting behind said annular shoulder, an outwardly projecting flange on said split ring portions, and a ring secured to said outwardly projecting flange and adapted to form the braking surface, substantially as set forth.

682,897. Hub. John P. Wulff, Albert Lea, Minn., assignor of one-half to W. A. Morin, same place. Filed Dec. 2, 1900. Serial No. 33,483. (No model.)

Claim.—1. In combination with a nut cylinder, cone rings threaded therein, a skein divided into two outer members, and an intermediate spacing member, cone rings on the respective outer members arranged opposite the rings on the cylinder so as to form raceways therebetween, balls in said raceways, and means for locking the whole in proper relative positions, substantially as described.

682,905. Vaporizer for Explosive Engines. John C. Bland, Sewickley, Pa. Filed May 20, 1901. Serial No. 61,047. (No model.)

Claim.—1. A device for vaporizing liquids, comprising an outer casing, a downwardly extending shell therein, an inverted dome shaped wire gauze covering for the bottom of the shell, a coniform distributor within the shell, and a liquid and an air supply above the distributor, substantially as set forth.

682,917. Tire. John M. Doan, Mishawaka, Ind., assignor of one-half to Edward W. Synwolt, same place. Filed July 20, 1901. Serial No. 69,096. (No model.)

Claim.—1. In an elastic tire, a relatively heavy soft rubber body having a longitudinally disposed open passageway therethrough constituting a self-sustaining core, an outer sheathing of flexible rubber, and a filler of soft fibrous material interposed between the heavy core or body and the outer sheathing, said filler being independent of and separate from the core and sheathing.

682,933. Incandescent Igniter for Explosive Motors. Rasmus P. Hansen, Brindley

Sogn Rødbby, Denmark. Original application filed May 4, 1899, Serial No. 715,671. Divided and this application filed May 23, 1900. Serial No. 17,720. (No model.)

Claim.—1. In explosion motors, an extension of the explosion chamber formed in the cover and communicating therewith, an igniting tube projecting into said extension of the explosion chamber the closed extremity of the igniting tube being provided with thin walls; substantially as described.

682,953. Bicycle, Tricycle, Etc. Downes E. Norton, Hampton Hill, England. Filed July 6, 1900. Serial No. 22,755. (No model.)

Claim.—The combination, with a front fork, of a link pivoted at one end to the said fork, a link pivoted to the other end of the link and foldable upon it, a reciprocatory handle bar provided with a projecting arm and journaled in the free end portion of the link, a spring drum carried by the said arm, and a flexible connection wound upon the said drum and connected with the driving mechanism, substantially as set forth.

682,976. Bicycle Coaster-Brake. Frederick E. Denzer and John Hullt, Hood River, Ore. Filed Feb. 20, 1901. Serial No. 48,153. (No model.)

Claim.—1. In a brake mechanism of the character described, and in combination with means for propelling the bicycle forward the brake elements, and a brake actuating member, pawls for co-operation with the brake actuating member, a loosely mounted carrier for the pawls, and a pawl actuator operated by means of the propulsive power and adapted to throw the pawls into and out of engagement with the said brake actuating member, substantially as set forth.

682,977. Resilient or Elastic Tire. Ernest A. Dibbens, Denver, Col., assignor to Charles G. Fawkes, same place. Filed Feb. 28, 1901. Serial No. 49,289. (No model.)

Claim.—1. In a wheel tire, the combination with the outer covering or hood, of an elastic filling located within the hood and comprising two inclined side members separated by a V-shaped opening whose base is adjacent the inner periphery of the hood, the said members forming a junction and merging into a rib located adjacent the outer periphery or tread of the tire, the inclined side members being provided with lugs or wings applied to their outer surfaces at suitable intervals.

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JOBBER'S AND THE STEEL RIM

From THE BICYCLING WORLD, January 3, 1901.

While steel rims are still fitted to not a few American bicycles designed for foreign use, the sight of a wheel so fitted for use at home is so rare as to excite remark.

That there has existed even a modest demand for steel rims for domestic use has not been generally supposed; the fact that such a demand does exist and may be enlarged by a little cultivation was brought home to us this week.

Two jobbers, one of them from the Far West, both agreed that this enlargement of trade is easily possible. One of them, led to try the experiment by reports of troubles with wood rims, ordered a stock of fifty pairs of the steel article. All were sold within ten days. The experiment was tried late in the year, and the result was so satisfactory that the jobber in question means to make a more serious effort in the same line next season.

The fact may "suggest things" to other jobbers; indeed, with the increasing experiment and use of motorcycles, on which steel rims are in general use, the average jobber may well give a thought to the steel felly.

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